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NEW AND CHEAP METHOD OF VENTILATION, APPLICABLE TO ANY APARTMENT.

[Communicated for the Boston Medical and Surgical Journal.]

Messrs. Editors,—It was not my intention to write the following paper until the results of experiments now progressing should enable me to make it more definite and conclusive. Your remark that the summer is upon us, and that suggestions might induce experiments and applications by others, has made me reconsider my intention, and accede to your request. All immaturity of ideas, or expression of them, will therefore be excused, and attributed to a desire to benefit, if possible, the poor fellows who are sacrificing their lives for their country's good.

Ventilation has hitherto been chiefly considered with reference to properly supplying the requisite amount of oxygen to the air of rooms. Attention has also been drawn to the importance of moistening it, and removing the exhalations from the skin. Some writers have properly allowed an extra movement of air through a room in order to carry off these exhalations.

In all cases, some points of essential importance seem to have been overlooked, partial views only having been taken of the conditions of the air essential to its best use, either by the well or sick, under certain circumstances. While it has been thought worth while to increase the moisture of too dry air, no means seem to have been sought for drying the air when too moist, without at the same time elevating the temperature, already too high; nor have any means been sought for changing the air about us from a negative to a positive electric condition; and while the electric machine has been called in to charge a person with the electric fluid, the great electrical changes in the atmosphere, wrought by the Creator on a grand scale by the summer shower, and either the cause of, or attendant upon, the invigorated condition of all things that live, has not been attempted to be imitated on a small scale by man.

Partial views only having been taken of the necessary conditions to be obtained, only partial means have been employed for gaining what has been attempted.

Whether the plenum or the vacuum method of ventilation is the better, has been much discussed. Machines for both kinds of work, and fires adapted to do both, have been invented, and work with great success, except in certain kinds of weather: to wit, when the temperature of the atmosphere is elevated, and it is also saturated with moisture, "hot, muggy, dog-day weather;" when the dew-point is high, and the air, of course, negatively electric. In such cases all means used by man have hitherto failed to produce the conditions of the air desirable for sick or well, and which have alone heretofore been wrought on a grand scale by natural ventilation. To imitate this should be the effort of man. This failure in producing the conditions most favorable to health and comfort, has doubtless been caused by failing carefully to observe what these conditions are.

First, oxygen in proper proportion in the air must be maintained. For this purpose a certain quantity of air must be passed through any occupied room.

Secondly, the exhalations from the skin and lungs must not be removed too rapidly, nor, on the other hand, be allowed to accumulate by being removed too slowly. Hence if the air is too dry it must be moistened, and *if it is too moist it must be dried*, either with or without raising its temperature, as the case may be.

Thirdly, the body and mind being always most active when the atmosphere is positively electric, this condition must, if possible, be produced.

Now, there is a unity in this trinitarian ventilation, for in cases heretofore difficult, viz., in hot, damp weather, the means adapted to gain one end will gain all three, which triple unity is one of the strongest theoretical proofs of the correctness of the ground taken. The means consist simply in *icing the air that flows into the room*, or is in it.

When the temperature of the atmosphere is nearly the same as that of the body, the vacuum effect of its heat is very little, and the vacuum effect of a fire in a vacuum chimney is lessened, and of course has no effect on the dew-point of a nearly-saturated atmosphere; hence the viscous perspiration remains on the skin, the blood is unrelieved, the brain is oppressed, and the electric conditions of the air and the body are unimproved, however great may be the quantity of such air poured through the room by any plenum machine.

Let, now, the air at the plenum openings properly located, be iced, the pressure of the cold or iced air will send the heated air up; the air flowing in over the ice will of course deposit a part of its moisture. and when again warmed and expanded by contact with persons and things in the room, will absorb the exhalations from the skin and lungs, and becoming also positively electric, will feel like the delightful atmosphere of summer after a shower.

Are these suggestions practical? Most certainly they are, for it was the practical that suggested the experiments that led to these theoretical views, accident having induced a series of experiments and thoughts that were the basis of what has been said. In fact, the chief cause of the delight these thoughts awaken is the unity, simplicity and practicability of the ideas suggested.

I cannot, from the number of experiments yet tried, say what detailed method will be the best for gaining the desired object, and I doubt not that the ingenuity of others will excel any method I can now or shall hereafter suggest.

For a simple, convincing experiment, merely a box, large enough to hold a dozen or twenty pounds of ice, is all that is required. Let some holes be cut in one side near the bottom. It needs no cover. Let it be placed under the sash of a window, so that two or three inches of it shall be outside the window; and, if the box is not as long as the window is wide, the opening under the sash at the ends of the box should be closed. Thus the air can pour through the box and ice into the room. A vessel of sufficient size should be placed beneath the box to catch the drip. The higher up in the room the box is placed, the better. So, if the upper sash drops, the box can be placed on it. It would, of course, be still better to have the ice above the room, and the air flow over the ice through several openings into the room.

Such a box was placed under the lower sash of a window in a room containing about 600 cubic feet of air. In the box I placed eleven pounds of ice, in three lumps, at half past one, P.M. Mercury 92, north side of house; inside, 90. In one hour, it had fallen to 84; in two hours, to 76. Outside it stood at 90. At ten, it was 78 inside, ice not quite gone. Thermometer, being in the middle of the room, placed near the floor it would fall, raised to ceiling it would rise. If I remained in the room half an hour, it would rise about three degrees.

On another day, twenty pounds of ice, in eight lumps, were placed in the box at 9, A.M. At 10, the mercury stood at 78 in the room, 86 outside. It did not go above 78, whether I was in the room or not; and next morning, at 9, twenty-four hours after the ice was placed in the box, it having not yet melted, the mercury stood at 69 in the room; at 80 in an adjoining room, and had been up to 90 there in the time of the experiment.

The door of this room, opposite the window, was so far from tight that no special vacuum opening was thought necessary; there was a direct opening over it. That it and the washboard would let so much cold air flow out as they did, was objectionable. A smoke being made by burning paper in the room, none of it was observed to pass through the box out of the window, but soon the circulation of air in the room, and through the box inside the window, was very beautifully exhibited, curling over the ice, then tumbling down in miniature cascades, sweeping along the floor, then eddying up to be again warmed and again pass down, drawn through the box by the falling iced air.

The feeling of the air thus iced had none of the dankness of a cellar, but was invigorating to the lungs and delicious to the skin, suggesting every moment that iced air is one of the materia medica, as well as one of the mechanical forces that shall prove a balm to many a fevered body. It was entirely suggestive of the after summer-shower atmosphere, that is so delightful to the well and so healing to the sick. What are the polar regions but one vast ice box, with bergs for lumps, through which the air circulating is cooled, depositing its moisture and thence pouring down upon us from the northwest with healing in its wings—more invigorating than any cordial, more healthfully stimulating than any dram, more cleansing than any bath. and more soothing and soporific than any opiate. With the air properly iced, all "nights will be found good for sleeping."

With proper arrangements, the rooms of sick or well persons can be ventilated with air of any desirable temperature; and I feel certain that hospitals, either temporary or permanent, can be constructed for such purposes without any cost additional to that now made, and that the same may be true of the dwellings of the rich or poor, while the ice required for such ventilation would cost but a trifle. An ordinary house, properly arranged, could be thus ventilated with the expenditure of from fifty to one hundred pounds of ice, costing from ten to twenty-five cents.

To have the experiments most successful, the doors should be made tight with rubber, list or the like, and a proper opening in the upper part of the room should be made to let off the air. The windows should be in some way doubled, as, in this case, they let in heat, as in winter they let it out. A curtain, sheet or blanket can be fastened to the frame of the window, or "double windows" of glass or paper can be added—Hunt's patent double windows being the best for this purpose of any which I have seen, since they go on inside, can be partly or wholly glazed with paper, can be easily taken off and put on, are neat as well as convenient, and made at half or two thirds the usual expense. The walls also should, as far as possible, be non-conducting; hence papering them will make the experiment more successful.

When the experiments now progressing shall be completed, I will inform you of the results; till when, hoping that these remarks will suggest something practical to the ingenious minds of your many readers,

I am respectfully yours,

Peekskill, N. Y., July, 1862. T. S. LAMBERT.

CASE OF INTERMITTENT FEVER OCCURRING SOME YEARS AFTER EXPOSURE.

By W. E. Rice, M.D., of South Boston.

[Communicated for the Boston Medical and Surgical Journal.]

May 11th, 1862, 9, A.M., was called to H. B., æt. 24, American, Saco, Me.; married; occupation, teamster; residence, Portland St.; uses intoxicating liquors sometimes to excess; has always enjoyed good health until the present time. While visiting some friends in Fourth St., South Boston, was attacked with rigors, cramp in the stomach and vomiting. (Vomitus largely tinged with bile.) This commenced yesterday morning, and still continues. Had two dejections yesterday, also two this morning, loose. Has pain in the head, limbs and back; also complains of a burning pain in the right hypochondrium, increased by motion and full inspiration. Pressure does not much increase the pain. Pulse 120, wiry. Thick, white fur on lobes of tongue; edges and centre red. Great thirst; anorexia; respiration 68, suppressed; skin hot and dry; decubitus indifferent; slight icterus. Slept only two hours last night. No physical signs of thoracic disease. Had been sitting in his shirt sleeves, in an open yard, the afternoon before the invasion of his disease. Complained, in a general way, of having had chills, two or three times, since the first attack, but laid no stress upon it. Supposing the case to be an acute febrile affection in the stage of invasion, I ordered ℞. Spiritus ætheris nitrosi, liquor ammoniæ acet., aa ℥ ss.; syr. lactucarii, ℥ i. To have ʒ i. every three hours. Fomentations of warm water to the right hypochondrium. To have gruel and ice water, in very small quantities, frequently administered. 7, P.M., vomiting had ceased, and he had been comfortable through the day, until ten minutes since, when violent rigors commenced, with a return of pains. Rigors so severe as to shake the bed. I then learned that my patient had been one of the men in Capt. Page's Expedition to Paraguay. The Expedition was absent from this country two years and three months, and a large portion of the time the men slept in the open boats, anchored in the river or grounded upon the mud flats. They were at all times exposed to the miasmata exhaling from foul river sediment, and the decay of rank vegetation. Though intermittent fever prevailed largely amongst the natives, there was not a single case of it, or of any serious illness, amongst the officers and crew of the Expedition. My patient returned to Boston two years and eight months ago, and has been perfectly well until the present attack. He has never been to the West or out of the New England States, except to Paraguay.

Believing that I had true intermittent, of double quotidian type, to deal with, I ordered one-grain doses of quinine, to be taken every hour until four were taken, and to commence in the morning with the same dose and continue until twenty were taken.

12th, 9, A.M.—Has slept well; has had no rigors or pain; skin quite moist; pulse 76, and a little wiry. Is much inclined to sleep; complains of frontal headache and vertigo. Tongue glazed and purple on tip and edges, with thick, white fur on lobes.

13th.—Walked to my office. Pulse 80. Tongue cleaning; appetite returning. Had one natural dejection this morning. Complains only of weakness.

I ordered thirty grains of sulphate of quinine in thirty powders, and directed him to take it for five days, in diminishing doses, to guard against relapse.

I present this case as an addition to those already recorded in this city, where patients have had ague, a long time after exposure to miasmata.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

May 12th.—*Biliary Calculus, consisting of almost pure Cholesterine, with very remarkable anatomical Appearances.*—Dr. Jackson showed the specimen, which was a very beautiful one, sent, at the request of Dr. Hitchcock, of Fitchburg, by Dr. George W. Peirce, of Leominster. It was of a nearly regular ovoid form, one inch in length, compact, slightly rough on the surface, and almost perfectly white. Having been analyzed by Dr. J. C. White, it was found to consist wholly of cholesterine, which seemed not quite perfect, as if a little more oxygen were wanting to cause it to crystallize.

The patient was a lady, 50 years of age, who had had symptoms of the passage of a gall-stone four or five years before, from which time her health, though tolerable, had been somewhat impaired, with an occasional bilious attack. She died at last, quite suddenly, from apoplexy. The anatomical appearances, as reported by Dr. H., were so very remarkable that Dr. Peirce was requested to furnish an account of them, and the following is an extract from his note:—

"The contents of the chest and abdomen were sufficiently healthy, with the exception of the gall-bladder. No unnatural appearance of the liver. No fluid in the gall-bladder, and the duct seemed impervious, though I did not make as careful an examination as I ought. The bladder contracted down close upon the calculus, the larger end of which projected through the parietes, being entirely uncovered for about one fourth the length of the calculus, so that it seemed just ready to slip out of its place into the cavity of the abdomen. There was no appearance of any inflammation of the surrounding textures, and no adhesions. The edge of the orifice looked like an absorption or abrasion; nothing like ulceration. The walls were extremely thin near the edge of the opening, being but little if anything more than the peritoneal coat."

June 9th.—*Facial Paralysis.*—Dr. Coale reported the case. The patient was a healthy, well-regulated girl, 18 years of age, who at first noticed that her face was somewhat stiff, and in twenty-four hours completely paralyzed on the left side. There was great distortion on laughing or talking, a staring left eye, and tenderness of the whole left side of the face. The tongue was not at all affected, the disease being confined to the portio dura. No cause could be found for it, unless it were that she had defective teeth in each jaw, as much, however, on one side of the mouth as the other. The treatment consisted of leeches to the place of exit of the nerve, strychnia, &c., but with no benefit. After the lapse of three weeks, she was advised to have her carious teeth removed, and thirteen were accordingly extracted. This was followed by manifest improvement in the course of five days. Electro-galvanism was then gently employed, and the patient recovered.

Dr. Tyler said that several years ago he had under his care a lady with severe sciatica, for which all the usual remedies had been tried in vain. Finding that she had several decayed teeth, he extracted four or five of them, with benefit. The remainder were subsequently drawn, after which the patient had no more pain.

In 1853, a boy of 19 was brought to the New Hampshire Asylum in a state of mania. Dr. Tyler ascertained that he had had a tooth extracted some time previous, and that one of the fangs had broken off, and remained in the jaw. Suppuration took place, the pus discharging outwardly, and the boy was suddenly attacked with mania. The fang was removed. The fistulous opening closed, and the patient quickly recovered from his mania.

In another case of mania, the patient being a young lady, several decayed teeth were removed. The patient remained to some extent under the influence of the ether, which was given at the operation, for twenty-four hours. After that she was cured of the mania.

These facts have led Dr. Tyler to regard decayed teeth as of great importance in connection with nervous disorders.

July 14th.—*Ovarian Dropsy; failure to obtain Fluid by Tapping.*—Dr. Storer said he had seen, in consultation with Dr. Edward Warren, of Newton, a woman with ovarian dropsy. An attempt had been made to relieve her by tapping, but on introducing a trocar and canula no fluid was obtained. The feeling of fluctuation was perfect, and as the abdomen was greatly distended, and the patient in much distress, Dr. S. introduced a trocar; but on withdrawing it no fluid followed. He then repeated the operation, in another place, but with the same result, and he did not feel justified in going any farther.

Dr. Storer afterwards received a letter from Dr. Warren, giving the result of the case, from which the following particulars are extracted: The tumor increased to an enormous extent; the lower extremities were much swollen, there was difficulty of breathing and increased difficulty of locomotion. On consultation with Dr. Hunt, of Weston, and Dr. Livermore, of Stow, it was agreed that the contents were unquestionably fluid, and a very large trocar was thrust in, below and to the left of the former punctures. No fluid followed the withdrawal of the trocar, but a feather which was passed in through the canula about five inches, was found, on withdrawal, to be covered with a colored, gelatinous fluid, which was too thick and stringy to pass through the canula in any quantity. After this her symptoms continued to grow worse, and the patient died in about five days, rather suddenly.

On opening the abdomen, a thin sac was found, filled with innumerable little cysts of an oval shape, and resembling the shelless eggs found in poultry, varying in size from the egg of a sparrow to that of a goose. They were full of a substance resembling calves' foot jelly, which in the smallest was clear and transparent, in the others more opaque, and in some yellowish. Most of the cysts were covered with a delicate network of minute vessels. The outer sac lay to the right side, but was connected with the left side of the uterus by a small pedicle, which was the only attachment, and it seemed surprising that so large a tumor should apparently have derived its nourishment by so small a channel. The contents of the tumor filled two large water-pails, and weighed thirty-six pounds. The failure to obtain fluid upon puncture was very easily accounted for, not only by its gelatinous nature, but by its being contained in cysts.

JULY 28th.—*Acute Peritonitis following Ovaritis.*—Dr. MINOT showed the uterus and ovaries of a patient who had died of acute peritonitis. She was an unmarried woman, 30 years old, who was employed as an assistant nurse in the Hospital. She was rather delicate, and had felt poorly for several days, but kept about her work till July 14th, when she was seized with severe pain in the abdomen, vomiting, purging, and some retention of urine. She was treated by the house pupil for cholera morbus, and the symptoms were mostly relieved by opiates and fomentations, though some pain still remained.

The next morning she was in bed, with a pulse of 110, and rather feeble; rather quick respiration, slightly coated tongue, cool skin and tranquil countenance. The vomiting and purging had ceased, but there was considerable tenderness of the abdomen. On the 16th she was nearly free from pain, and the bowels had not been moved.

On the 17th, the pulse was at 122, there was much pain and tenderness in the abdomen, especially in the two hypochondria, and some retching, but no vomiting. The catamenia appeared this day, a week in advance of their regular period, without known cause. She had had no chill.

On the 18th, she was found with the shoulders much raised, and the knees drawn up, and the nurse reported that she constantly lay in that position, though the patient affirmed that she could straighten the limbs without pain. She said she had had a comfortable night, but the pain returned with severity towards morning, and still continued. There was also much tenderness over the whole abdomen. Respiration was painful. Pulse 150, skin hot, tongue moist and nearly clean, no pallor or expression of anxiety. One moderate dejection after enema.

On the 19th she was evidently dying. The pulse could hardly be felt, and could not be counted, the extremities were cold and moist, the pain and tenderness of the abdomen were as before. The intellect was perfect, and the patient was cheerful and even jocose. There was none of the pallor and the anxious, pinched expression of the countenance which is considered as characteristic of peritonitis. She took a mug from the table by her bedside, without assistance, and drank its contents. She died at 1, P.M.

There had been no chill throughout the disease, according to her own statement; certainly there had been no rigor. The treatment consisted chiefly in the administration of opiates and the application of fomentations.

At the autopsy, which was made by Dr. ELLIS, nearly a pint of pus was found in the peritoneal cavity, mostly in and near the pelvis. The uterus was four inches in length; os patulous; walls softened; lining membrane reddened, and in the upper part shaggy. Both ovaries were covered with thick pus, were soft and highly injected. Several old corpora lutea were seen, of considerable size but nothing which indicated very recent menstruation. One portion of the right ovary was softened to a pulp—apparently the seat of an abscess. The Fallopian tubes, to their extremities, were much thickened, and of a dark red color. A lumbricus was found in the stomach, and another in the duodenum.

July 28th.—*Dr. Blackall and Dr. Bright.*—Dr. C. D. HOMANS having lately presented a portrait of Dr. Bright to the Society, Dr. JACKSON said that it seemed to be a very proper occasion to make some remarks, which he had long had in mind, in regard to Dr. Bright's predecessor. Dr. Blackall's work was not so much one on dropsy, as upon those cases of dropsy that are attended with coagulation of the urine; and his work was freely quoted to show that he was as familiar as we are at the present day with the different degrees of coagulation, with the different tests that are to be used, and with the relative value of those tests. The low specific gravity of the urine he does not seem to have been aware of. In relation to the anatomical explanation of these cases of coagulation, he says that this last "is not connected exclusively with the affection of any particular organ"; and yet he refers so frequently, and in such strong terms, to the different and sometimes very marked forms of disease of the kidneys that he observed, that we cannot but feel that he was just upon the point of making one of the most valuable medical discoveries of modern times.

Dr. B. gives nine dissections, and the following is the result: in one case "the kidneys were remarkably solid and hard, and their structure somewhat confused" (page 114, Philadelphia edition, 1825): in a second (p. 70) "the kidneys were unusually firm," with "very small hydatids"; in a third (p. 76), "the kidneys were remarkably loaded with blood": in a fourth (p. 103), "the kidneys were remarkably small and sound, if we except two or three hydatids, of the size of a garden-pea, in the cortical part": in a fifth (p. 212), "the kidneys were thought large, and in their cortical part of a color somewhat browner and duller than usual": in a case of anasarca following scarlatina (p. 62), Dr. B. says "it was not uninteresting for me to ascertain the state of the internal parts, and particularly the kidneys," which "were rather soft and flaccid, and more loaded with fat than could have been supposed," &c., "but in other respects quite natural": in a seventh case (p. 93), "the other viscera of the abdomen were sound. I speak particularly of the kidneys." In the eighth case (p. 117), the urine contained a "bloody sediment," but is not reported as coagulable: the head was examined, but no reference is made to the abdomen, and the case might perhaps be set aside, as having probably been one of tubercular meningitis. In the last case (p. 81), "the abdomen was free from any appearance of disease"; and this is the only one, excepting the eighth, in which the kidneys are not referred to. Dr. B. was looking for disease in these organs to explain the coagulation, as appears by his general remark (p. 157), "that the urinary organs are often free from any appearance of unsound structure, notwithstanding the great fault in their secretion."

In a Postscript to his truly clinical work, Dr. Blackall quotes freely from the papers of Dr. Wells on Dropsy as a sequel of scarlatina, and on dropsy not connected with this disease, but in which the urine contained the serum and red matter of the blood, i. e., was coagulable; papers published in 1812, and admirable specimens of the numerical system of observation. "In three instances, an examination was permitted after death" (p. 209), and different appearances were found; but in one "there were some hydatids in the right kidney"; "in the second the kidneys were unusally thickened, and even changed ("confused," p. 157) in their structure"; and "in the third, the kidneys were larger and softer than natural, with several vesicles on their outside." And upon the same page Dr. B. makes the general remark that "the kidneys likewise have been diseased in an unusual proportion in such dissections."

Dr. J. said that he did not wish to detract in any degree from the credit of Dr. Bright as the discoverer of the disease that very properly bears his name; his facts were so numerous, so thoroughly observed and so well reported, that his claim can never be questioned. It would have been more honorable, however, Dr. J. thought, if he had given to Dr. Blackall more credit for what was evidently in his mind. In his Preface, Dr. Bright refers to the disease in question, as one, he says, "of which I must bear the responsibility alone"; and in some introductory remarks he says: "The observations which I have made respecting the condition of the urine in dropsy, are in a great degree in accordance with what has been laid down by Dr. Blackall in his most valuable treatise"; and this is the only allusion that he makes to him. Dr. Blackall deserved that general complimentary notice: but he looked to something beyond "the condition of the urine," and he should have had proper credit given to him for it; it must have been given to him by others, if not by Dr. Bright, Dr. J. supposed, but if such was the case, he was not aware of it.

JULY 28th.—*Tetanus.*—Dr. CABOT reported the case. The patient was a young man, 19 years old, whose arm had been caught between two cog-wheels. The teeth of the wheels were so small that the skin only was lacerated, leaving the muscles beneath uninjured. Small portions of the skin sloughed away. Dr. Cabot first saw the patient June 14th, about a week after the injury. On the 12th, he had some stiffness of the neck, with involuntary contraction of the injured arm; on the 13th, difficulty in opening the jaws; on the 14th, spasms, which were brought on by any movement, by a light touch from another person, or by swallowing liquids. The next day these amounted to slight opisthotonos. The parents of the lad had heard of the operation of excision of a nerve in the treatment of tetanus, and were anxious to have it done. Although Dr. Cabot had very little hope of benefit from the operation, yet in view of the desperate state of the case he consented, and removed about half an inch of the musculo-spiral nerve, at the upper and outer part of the interspace between the supinator longus and brachialis anticus. The patient, who was etherized, slept an hour after the operation, so that Dr. Cabot began to hope that it had had a favorable effect. However, a violent opisthotonos then took place, and the spasms became more violent than ever. Ether was then given on the approach of every spasm, which was constantly indicated by the smallness of the pulse. Enemata of beef-tea were also administered every two hours. The patient died at 12 in the night.

Dr. FIFIELD said that he had been told by a veterinary surgeon of large practice, that he could always cure horses of tetanus, by means of large and repeated injections of tincture of lobelia. Mr. Colles, of Dublin, says that the only two cases he ever knew to recover were treated by injections of tobacco.

Dr. Cabot said that cases of tetanus occasionally recover, but in these the disease seems first to become chronic, and the favorable termination is more owing to the mild character of the disease, than to the remedies employed. Tetanus being a disease of exhaustion of the nervous power, he should think that a powerful depressant, like lobelia, would do more harm than good.

Dr. Flint, of Louisville, who was present, remarked that he had lately seen a case which recovered, perhaps in consequence of the disease passing into the chronic state. The patient had received a lacerated wound, in the thigh, and the first symptom was the drawing up of the injured limb. There was never sufficient trismus to prevent mastication. The treatment consisted mainly in the inhalation of chloroform.

Dr. Cabot said that the change in the character of the pulse, before the paroxysm came on, was very remarkable. It became very rapid and small as a paroxysm approached: after the patient came under the influence of ether, it grew fuller and slower.

Dr. Jeffries Wyman said he recollected a case of tetanus which recovered, some years ago. The patient was a medical student at Richmond, Va., who punctured his finger while dissecting. The case was perfectly well-marked, though not very severe. The patient was bled freely, and, Dr. W. believed, took antimony; and he stated that he had had a similar attack once before, from a wound of the finger, by a splinter.

Dr. Tyler remarked that lobelia is a very efficient remedy, administered per rectum, in hysterical convulsions, and also in the convulsions of children. Its controlling power is seen without producing vomiting or much depression. He had used the tincture, combined with spirits of turpentine and white of eggs. The powder of the leaves is of great service in pneumonia, when antimony would be too depressing; and in the congestion of the lungs, which appears in severe cases of typhoid fever: and especially in those cases exhibiting any spasmodic action.

July 28th.—*Employment of Ergot followed by Retention of the Placenta.*—Dr. Ayer said he had lately attended two patients to whom it was necessary to administer ergot, in consequence of insufficiency of pains. In each case, though the child was born alive, the placenta was retained attached to the fundus, making it necessary to introduce the hand into the uterus in order to remove it. This manœuvre was executed with great difficulty, in consequence of the firmness of the uterine contraction at the lower part, resembling what is usually called "hour-glass contraction." He had noticed this state of things before, after the exhibition of ergot, and asked if other gentlemen had done the same.

Dr. Storer said that ergot had the credit of causing retention of the placenta, but he had never seen this effect from it, and he considered it one of the most valuable agents we have in the materia medica. He had always observed that those gentlemen who seldom used ergot were most prejudiced against it, while those who often used it were loudest in its praise. When judiciously given he had never seen any injurious effect from it. As to "hour-glass contraction," he had been in practice nearly forty years, but he had never yet seen a case of it. Irregular contraction he had often seen, but constriction of the circular fibres, separating the fundus and cervix into two cavities, he never saw. Irregular contraction he thought was independent of the use of ergot. It is often seen when no ergot has been given.

Dr. Ayer did not mean to say that the uterus contracted in the way described by Dr. Storer, but that his cases were what were frequently called hour-glass contraction. He frequently used ergot, and considered it a valuable remedy.

Dr. Minot asked Dr. Storer what preparation of ergot he gave the preference to.

Dr. Storer said he had found none so good as the simple infusion, made with boiling water, which should be of an amethystine color and have the characteristic odor, otherwise it is inert. He usually employed half a drachm of the drug, repeating it in half an hour, if no effect were produced. If no uterine contraction then occurred, he concluded either that the patient was not susceptible to it, or that the article used was of poor quality. He had found the powder apt to vomit the patient, and the tincture had generally failed in his hands.

Dr. Fifield said he had found the "fluid extract of ergot," prepared with sulphuric ether, a very efficient preparation, and very convenient in country practice, where it is not always convenient to make the infusion in the night time. He thought retention of the placenta generally followed the employment of ergot, and usually made up his mind, when he gave it, that he should have to introduce his hand into the uterus, to remove the afterbirth

Dr. Storer was surprised at this statement. He had never noticed retained placenta to occur particularly in cases in which ergot had been given.

Dr. Morland asked Dr. Storer what had been his experience as to any unfavorable influence exercised upon the child by ergot administered during parturition?

Dr. Storer had never known deleterious effects to be produced by ergot, when its administration was clearly indicated.

Dr. Morland said he had lately given ergot to a primipara, in whom the pains had been very inefficient. After 14 hours of labor, there seeming to be no reason why the child should not be born, if proper uterine efforts could be induced—the head being well advanced—a quarter of a drachm of freshly powdered ergot was given, infused in tea. The pains, although almost immediately increased, again slackened, when another quarter of a drachm was taken. This was not long retained upon the stomach, yet the pains became continuous, strong, and expulsive. In about an hour and a half, a large male child was born, *still*. It was undoubtedly living some two or two and a half hours before birth, as the mother plainly felt its movements. Dr. M. by no means attributed the death of the child to the ergot—especially since but little was taken and much of that vomited,—but he merely gave the facts. His preference in a similar case, would be to use the forceps. The placenta in this instance was retained: and Dr. M. was obliged, after waiting a reasonable time, to introduce his hand into the uterus and remove it. There was no irregular contraction of the womb, as mentioned by Dr. Ayer in his cases.

Dr. Storer inquired whether there was much lividity of the child's face?

Dr. Morland replied that the lips only were livid. The head was large, the cord was wound once around the child's neck, but not tightly drawn.

Army Medical Intelligence.

To the Surgeon-General. MEDWAY, JULY 26, 1862.

DEAR SIR,—I reached home the 13th inst., after a short but active campaign of six or seven weeks, with the Army of the Potomac. Although sent by you upon an independent footing, I thought best to contract and put myself under the army regulations, securing thus a recognized official position, with specific duties and mutual obligations. I have had no cause to regret, but abundant reason to be satisfied with my decision.

With seven other Massachusetts surgeons, I was detailed to the White House Hospital, where, for four weeks, I had an opportunity of observing the diseases of the Army. It was a Field Hospital, consisting, when fully extended, of 170 hospital (wall) tents. The number of patients varied from 1200 to 1600. Diarrhœa was nearly universal, whatever else might be the matter. Rheumatism, or, to coin a word, rheumatoid affections, were the next most common complaint: next typhoid and intermittent fever, comparatively few cases of the latter assuming the regular forms of the disease. We found a great many patients who had suffered from over-dosing with quinine administered in whiskey. We gave it, when necessary, in much smaller quantities, with benefit to the patient and saving to the government. I believe a vast amount of sulphate of quinine is worse than wasted by army surgeons. A common, and very acceptable form for its administration in the hospital, is as follows: ℞. Quiniæ sulph., ℈j.; acid. sulph. aromat., ʒij.; tinct. capsici vulg., ʒj.; alcohol. dilut. (or whiskey), ℥j.; aquæ puræ, q. s. ut fiat, f℥iv. Dose, one drachm, at short intervals, or pro re nata. While the sulphuric acid furnished a grateful adjuvant, the tincture of cayenne proved a valuable excitant, arousing the torpid and debilitated nervous power to the appropriation of the more permanent tonic virtue of the sulphate of quinine. (*Mem.* I don't forget the absorption theory.)

At the battle of Fair Oaks, five of the surgeons from the hospital were detailed for service, where we had an unlimited opportunity for practice in army surgery. There were not surgeons and instruments enough there to meet the demand for operations, and many of the wounded were sent in the cars to the Pamunkey and to Fortress Monroe, there to suffer capital operations at a late period, which proved nearly always fatal.

About ten days before I left the hospital, I was detailed to receive the sick coming from the army in the cars, sending those *really* sick to the hospital, and the malingerers back to their regiments: not a very pleasant, but yet a very important and responsible duty.

On the 22d of June I was ordered to report to Gen. Heintzelman, at his head-quarters, Savage Station. The medical director of his division, Dr. Milhau (one of the really efficient and worthy medical officers of the army), attached me to the 2d regiment New Hampshire volunteers, Grover's brigade, Hooker's division, to fill the post of the Assistant Surgeon, absent an account of sickness. Thursday morning, June 25th, Dr. Milhan sent me to a depot for the wounded, as the first of the series of the six days battles had begun. In these depots for the wounded, I spent the greater part of my time, night and day, until we arrived upon the banks of the James river, living during all this time, with the exception of four meals at a mess table, upon an insufficient supply of *hard* bread and a beverage called coffee, in which the principal ingredient was the sacred soil of Virginia, which latter also furnished my place of rest, when I had a chance for rest. At the battle of Nelson's Farm we worked at the depot (which was a church with the pews removed), until 1½ o'clock, A.M., July 1st, when we desisted from operations from sheer exhaustion, leaving several amputations to be performed in the morning by two surgeons, who volunteered to remain with the wounded. At 2 o'clock, A.M., we mounted our horses and joined our retreating division. This day the battle of Malvern Hills was fought, when shot and shell, from gun-boat, artillery and infantry, reigned supreme, filling the air with discordant music, and the depots with wounded men. Wednesday, July 2d, we arrived at Harrison's Landing, marching all the forenoon in a drenching rain, without any breakfast. A week of excessive labor of brain and muscle, with a *very* limited supply of food, had done its work for me and others. Being unfit for duty, I went to the Hygeia Hospital, Fortress Monroe, when, at the end of a week, being no better, but rather worse, I came home, where I am slowly recovering my health and strength.

In conclusion, I must say, that I could not have timed my connection with the army more opportunely, if I had foreseen what was to occur. An advance to Richmond, rather than a retreat, would have been far more agreeable, and less exhausting, but no more instructive and profitable in a professional point of view.

Most respectfully, your ob't serv't,

ALEX. LEB. MONROE.

Selections from Medical Journals.

A DEEPLY-PENETRATING WOUND OF THE HEAD.

[A Clinical Lecture delivered at the General Hospital of Toronto, Canada West, by W. R. BEAUMONT, Esq., F.R.C.S. Eng., &c. &c.]

GENTLEMEN,—If the ablest surgeon were compelled to do that which by mere chance befel the patient whose case I shall relate to you, he would certainly be greatly puzzled as to the mode of accomplishing it with an equally successful result: I mean, if he had to thrust the shaft of a rocket through the orbit of a living man, burying it five inches and a half in his head, in a direction backwards, either immediately above or below the base of the cranium, he probably would feel morally certain of killing the unfortunate subject of his operation. Such an injury, however, did happen to the person whose case I shall detail to you, and that even without the sequence of any very alarming symptoms. I need hardly say that all wounds traversing the orbit and perforating its bony walls in a direction either upwards or backwards, are necessarily fraught with the greatest danger to life. The thin orbital plate of the frontal bone can offer but little resistance to a thrust made even with a small amount of force: and cases are recorded of persons killed by a mere stick driven against the roof of the orbit, which has thus been perforated, and the brain wounded. If I recollect rightly (for I am going back to five-and-thirty years ago), the late Mr. Abernethy used, in his lectures, to relate the case of a child who, whilst peeping through the key-hole of a door, received a thrust in the orbit from a small stick pushed at him by a playfellow, and died from wound of the brain caused by so slight a force. The same thing has happened from the thrust of a sword or of a foil in fencing, and even from a push with a lath or an umbrella. Dr. Mackenzie, in his work "On Injuries and Diseases of the Eye," has collected many cases of the kind: and he remarks that from either gun-shot or other penetrating wounds of the orbit, "we may occasionally expect haemorrhage, extravasation of blood, blindness, strabismus, syncope, vomiting, coma, convulsions, palsy, and even death, as immediate effects; and, as remote effects, fever, delirium, suppuration, caries, exfoliation of bone, and the like." Amongst these more remote effects, death should also be added to the list: for cases have occurred in which, for a considerable period after the receipt of the injury, no alarming cerebral symptoms have supervened, and yet the patients have eventually died, and, in some instances, suddenly. Dr. Mackenzie quotes the following case or two in point, and to show how guarded a prognosis should be given in all cases of deeply-penetrating wounds of the orbit:—

"A man having received a sword wound in the left orbit, from which he felt no subsequent pain, covered it with a plaster, walked two leagues, and ate and drank heartily with his companions as if he were quite well. The next morning he was found dead: and the wound, on post-mortem examination, was seen to reach the cerebellum. This case was published by Peter Borel, of Frankfort, in 1676.

"Another and more extraordinary case of sword wound through the orbit, transversing one of the lateral ventricles, and reaching the lambdoidal suture, is related by Diemerbroeck (1672). In this case the patient remained in his *usual state of mind and health till the tenth day*, when he was seized with violent fever, and died two days afterwards."

That such a wound should cause no alarming symptoms for ten days, is almost incredible; but the case strongly shows how guardedly we should give an opinion as to the result of wounds passing through the orbit.

Another direction in which an intruded body is likely to prove fatal is upwards and inwards through the lamella plana, and cribriform lamella of the ethmoid bone, of which Dr. Mackenzie gives the following case, quoted by Bonetus in his Sepulchretum:—

A countryman, aged fifty-five, received a thrust in the right orbit from the sharp end of a broken whip-handle, which entered close to the inner canthus of the eye. He was carrying at the time a heavy burden, and trudged on, apprehending no danger, for a quarter of a mile, when he instantly dropped down dead. On examination after death, the nasal extremity of the falx was found wounded, the third ventricle perforated, and in it a considerable quantity of grumous blood.

This man died almost immediately from a comparatively small wound of the brain, whilst others have lived for years after a most extraordinary amount of injury done to the brain by gunshot and other wounds traversing the orbit. Vision of the eye of the wounded side has in most cases been lost, even though the eye itself has appeared uninjured by the accident, as happened in the case I am about to relate:—

James W ———, aged forty-five, a man of spare make, rather above the middle height, and of ordinarily healthy appearance, whilst standing amongst a crowd of persons, received on the evening of the 4th of May, 1859, a broken rocket-shaft through the left orbit. He told me that he was about twelve yards from the rocket at the time it was fired: that he was looking at it, and remembered distinctly to have seen it held above the heads of the people at the time of firing it. He received this terrific wound without falling, and walked some thirty or forty yards to a tavern, where I saw him ten or fifteen minutes after the accident sitting in a chair, his face and lips pale, and his pulse extremely small and weak. There was no expression of pain, only that of extreme shock from severe injury—pallid, shrunken, and motionless features. There was no symptom of cerebral lesion; but vision of the eye of the injured side was immediately and completely lost, though the eye itself appeared uninjured. This amaurotic condition of the eye may have resulted from pressure on or laceration of the optic nerve, or from mere pressure on the globe of the eye, or from extravasation of blood within the globe caused by its contusion. The only mark of injury visible was a thin splinter of wood, not half an inch long, projecting from the orbit immediately above the inner canthus. I placed him on the floor, half recumbent, his head and shoulders being supported. I then endeavored to extract with tolerably strong forceps what I supposed to be a small portion of a rocket-shaft, but I found that I could not stir it. I sent for and soon obtained a pair of strong, flat-bladed pliers, with which even I could not move by direct traction the intruded shaft, so tightly was it wedged between the bones through which it had passed. Knowing that the shaft of a rocket is not round, like that of an arrow, but square, I was aware of the small extent to which it could be rotated on its axis; still I found, on trying to do so, that a slight degree of movement on its axis was not impossible, and by turning it several times a few degrees alternately to the right and to the left I at last loosened it, and slowly drew out inch after inch of the shaft, with no small astonishment as the last two or three inches showed themselves. Its extraction was instantly followed by a profuse gush of blood—a stream almost as large as the extracted shaft: but the bleeding almost ceased in five or ten minutes, iced water being applied over the forehead and upper part of the face. I had forewarned his friends that he might possibly die from hæmorrhage immediately on the removal of the shaft, which I conceived might have acted as a very efficient compress to any large arteries or veins which might have been lacerated. He, however, did not even faint, and in less than fifteen minutes, without any help, got up from off the floor, and walked, saying that he felt quite able to do so. I directed his friends to keep him perfectly motionless, to apply unremittingly iced water to his head, and to carry him gently to the hospital. I also prescribed small and repeated doses of calomel and jalap.

His friends did not take him to the hospital, and I lost sight of him, supposing him to be dead, until the 23d of June (forty days after the accident), when I found him in good health, strong, and perfectly well except the total loss of sight of the left eye, and the loss of sensation in the upper and anterior part of the left cheek, ala nasi, and left half of the upper lip—probably the result of injury to the infra-orbital branch of the superior maxillary nerve. There was no muscular paralysis detectable. The motions of the left eye corresponded with those of the right, and the levator palpebræ superioris contracted properly, showing that the nerves passing through the sphenoidal fissure were uninjured.

He told me that he was up and dressed, walking about his room, three days after the accident, and that within three weeks he walked a distance of half a mile. He said that he suffered severe headache and vomiting during the first twenty-four hours, but not much pain after that: and had been but slightly feverish. The wound had healed very readily, with scarcely any suppuration, and no pieces of bone had come away. It is surprising that a deep, roughly-made wound like this should have healed by adhesion: if it had not so healed, the lacerated surfaces must have suppurated, and have discharged daily a large quantity of pus, instead of a few drops, as the patient assured me. He also told me that there had been no paralysis except loss of vision of the left eye, and loss of sensation in parts supplied by the infra-orbital nerve: and there had been no loss of consciousness, or anything indicating a severe lesion of the brain, which it is probable, though by no means certain, had not occurred.

The only treatment adopted was that which I had prescribed—namely, cold water to the head, and a few doses of calomel and jalap.

Fifteen weeks after the accident, he told me that his health continued good, but he thought himself hardly so clear-headed as before the injury. I again saw him eight months and a half after the accident: his health and strength as good as ever, but his memory for occurrences happening *since* the injury somewhat impaired, though he did not forget anything which had happened *previously*. Very recently, nearly three years after the accident, I again met with him. He remained nearly the same in every respect, his health and strength good, but his memory decidedly impaired.

One chief point of interest in the case is the consideration of the exact course which the rocket-shaft had taken. It seemed, as I withdrew it, to have passed almost directly backwards, nearly parallel with the mesial plane, apparently through the sphenoidal fissure, and into the base of the middle and posterior lobes of the left hemisphere of the brain: but as it had not killed him, nor even caused any symptoms of cerebral lesion, one can hardly think that it had taken this direction, especially as all the nerves passing through this aperture had escaped uninjured. Some or all would probably have been crushed or torn asunder. If, instead of entering the cavity of the cranium, it had broken the floor of the orbit, passing between the orbital process of the superior maxillary bone and the great ala of the sphenoid, and *below* the base of the skull, it is hardly possible to conceive how all the bloodvessels and nerves passing through the many foramina of this part should have escaped uninjured, the internal carotid and internal jugular lying directly in such a course. I am sure, from the direction of the shaft, as I slowly extracted it, that it had not passed obliquely downwards into the pharynx, and therefore that it must have taken a course either immediately above, or immediately below, the base of the skull. Under either condition the patient's escape from death renders the case one of the most remarkable in the annals of surgery.—*Lancet.*

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, AUGUST 7, 1862.

The present number begins a new volume, making a semi-annual starting point for a renewed effort in our editorial labors, and opening a new page of editorial responsibility. It brings with it an important change in the conduct of the Journal, namely the withdrawal of the Editor whose name has stood first. To say that his withdrawal is a source of sincere and deep regret to all on whom the responsibility of carrying it on remains, is but a feeble expression of a universal sentiment. Nothing but his unalterable purpose could have obtained their assent to a separation which, on their part, has been approached with extreme reluctance. The loss is equally great to our readers: and we may well look forward with misgiving when we consider how much we owe to the sound learning, good judgment, excellent taste and honorable and gentlemanly feeling of our late associate. Private reasons, however, have proved insurmountable, and we must submit with the best grace we may. We are not writing our friend's epitaph, and delicacy therefore forbids us saying more of the personal relations which have made his association with us always most agreeable and profitable. We trust that although his share in the editorship has ceased, he will continue from time to time to contribute to our pages.

And now we would again appeal to the Medical Profession in New England to lend us a helping hand, and contribute more liberally from their stores of learning and experience than they have hitherto been disposed to do. The pecuniary inducement to carry on the Journal is small indeed at the present time, and the duty is doubly hard when we have to depend on a few heavily-taxed contributors to aid us in doing what we can to keep up the standard of the profession here. This is a matter in which the whole medical community have an interest; we hope they will take it more conscientiously to heart. Surely the New England States ought to supply their only Medical Journal with abundance of fresh and profitable matter the year round. So far as our individual effort is concerned, we shall do our best; but we look for liberal cöoperation.

Messrs. Editors,—At a special meeting of the Lawrence Society for Medical Improvement, held last night, the accompanying preamble and resolutions were unanimously adopted. In accordance with instructions from the Society, I offer you a copy for publication.

Respectfully, E. Seyffarth, M.D., *Secretary.*
Lawrence, Mass., July 30, 1862.

Whereas, This Society has been called to mourn the removal, by death (occurring on the 26th day, inst.), of its President, Dr. J. H. Morse, of this city, who was most highly respected for his usefulness as a citizen, as a member of the profession, and by this body more especially, which will miss his warm interest in their welfare and in the usefulness of their association, and

Whereas, It is fitting, that we should give some public expression of our sense of bereavement and of our appreciation of his worth, be it therefore

Resolved, That in the decease of our late associate and friend, we recognize the loss of one, who, by superior attainments, practical efficiency and devotion to its grave responsibilities, adorned and dignified the medical profession.

Resolved, That we will keep in lasting remembrance the memory of his good deeds and the excellency of his character, and, as a mark of respect, no successor shall be chosen to the chair, so ably filled by our late President, until the next annual meeting of the Society.

Resolved, That to the family of our deceased friend we proffer our sincere and affectionate sympathy in this hour of severe trial, and assure them of the deep interest with which we shall ever regard their future welfare.

Resolved, That the Secretary be instructed to transmit a copy of the resolutions to the family of Dr. Morse, and to offer them for publication in the Boston Medical and Surgical Journal, and in the Lawrence papers. G. W. Garland, M.D., *Vice President.*

Edmund Seyffarth, M.D., *Secretary.*

The Middlesex North Dist. Med. Society.—The following preamble and resolutions were unanimously adopted at a late meeting of the Soc.

Whereas, It has pleased God, in his infinite wisdom, to remove from the scene of his earthly labors, our friend and brother, Eben K. Sanborn, M.D., late of Rutland, Vt., formerly Surgeon to the 1st Volunteer Regiment of that State, but more recently, by the appointment of Governor Andrew, Surgeon to the 31st Volunteer Regiment of Massachusetts:

And, *Whereas*, he left a wide and extending practice to engage in the service of his country, in this dark hour of that country's need, it becomes eminently fitting and proper, that here, where his earlier years were passed, and his professional life, so full of promise and hope, commenced, some public recognition should be made by us, his surviving brethren, of his talents, his ripe attainments, and his moral worth:

Therefore, *Resolved*, 1st, That in the death of Dr. Sanborn, the medical profession has lost one of its young, but most promising members: one, who pursued his chosen department of labor, with a zeal, an avidity and an intelligence, that could not fail to elevate him to an enviable position among the distinguished surgeons of our times. That the country has been deprived, in one of the most important branches of her service, of one eminently fitted by his tastes and his surgical acquirements for the high position he was called to fill.

Resolved, 2d, That Dr. Sanborn has left to his compeers a bright example of what may be accomplished, by patient study and investigation, and untiring ardor in the pursuit of knowledge.

Resolved, 3d, That we deeply sympathize with the bereaved family of the deceased in this most afflictive Providence.

Resolved, 4th, That this preamble and these resolutions be entered on the records of the Middlesex North District Medical Society, and that a copy of the same be forwarded to the Boston Medical and Surgical Journal for publication.

Attest, I. W. Scribner, M.D., *Secretary.*

Surgeons who Voluntarily Remained in Richmond with the Wounded.—Pursuant to a call, a meeting was held of the Union Surgeons now in the Confederate State Prison. On motion, Dr. M. S. Kittenger was elected Chairman, and Dr. J. P. Seely Secretary. The Chairman stated that a notification had been received from the Confederate authorities that all the Surgeons now prisoners were this day free to return home. In a few brief and eloquent words he mentioned the fact that, in this building alone, there were nearly 1,500 of our wounded or sick officers and soldiers, and altogether, probably, in Richmond, 3,000.

On motion, it was resolved that all those Surgeons who volunteer to remain, and extend their professional services to our sick and wounded, do now signify the same. Whereupon the following gentlemen volunteered to remain: N. F. Marsh, Surgeon Fourth Pennsylvania Cavalry; Alexander A. Edminston, Assistant Surgeon Eighteenth New York Volunteers; James W. Powell, Surgeon in charge Hooker's Division Hospital; George McAllister, Assistant Surgeon Seventy-first New York Volunteers; James S. de Bieneville, Surgeon Eleventh Pennsylvania Reserve; M. S. Kittenger, Surgeon One Hundredth New York Volunteers; T. P. Seely, Acting Assistant Surgeon Sixteenth Michigan (Stockton's).—*Am. Medical Times.*

Dr. Francis M. Lincoln, late Assistant Surgeon of the Mass. 9th Regiment, has been appointed Surgeon to the 35th Regiment.

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, August 2d, 1862.

DEATHS.

	Males.	*Females*	*Total.*
Deaths during the week,	40	54	94
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	47.5	50.5	98.0
Average corrected to increased population,	..	..	110.70
Deaths of persons above 90,	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
10	17	1	3	1	0	5	2	1

Erratum.—On page 508, 4th line from bottom, the sentence should end after the word "process," and not after "side."

Communications.—Case of accidental Resection of the Elbow-joint.—Case of Poisoning.
Books Received.—Transactions of the Medical Society of the State of New York, for 1862.

Married,—At St. Paul's Church, Baltimore, on the 26th inst., Dr. Alpheus B. Crosby, of Hanover, N. H., late Medical Director of General Casey's Division, Army of the Potomac, to Miss Mildred Glassel, only daughter of Mrs. Luke Lea, of Baltimore.—At Lynnfield, on the 31st ult., N. M. Payne, M.D., of Gloucester, to Miss Mary A. Alden, of Chelsea, daughter of David Alden, Esq., of Northport, Me.

Deaths in Boston for the week ending Saturday noon, August 2d, 94. Males, 40—Females, 54.—Accident, 1—disease of the bowels, 1—inflammation of the bowels, 2—congestion of the brain, 3—disease of the brain, 1—bronchitis, 1—burns, 1—cholera infantum, 17—cholera morbus, 2—consumption, 10—convulsions, 2—croup, 1—debility, 1—diabetes, 1—diarrhœa, 4—diphtheria, 1—dropsy, 1—dropsy of the brain, 3—drowned, 2—dysentery, 5—erysipelas, 1—scarlet fever, 3—typhoid fever, 2—disease of the heart, 3—infantile disease, 7—intemperance, 2—inflammation of the lungs, 1—marasmus, 4—old age, 2—disease of the prostate gland, 1—scrofula, 1—suicide, 1—teething, 1—unknown, 5.

Under 5 years of age, 57—between 5 and 20 years, 5—between 20 and 40 years, 19—between 40 and 60 years, 7—above 60 years, 6. Born in the United States, 71—Ireland, 19—other places, 4.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

Vol. LXVII. Thursday, August 14, 1862. No. 2.

A CASE FROM MY NOTE-BOOK.

By W. Channing, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

July 25th, 1862.—Mrs. ——, 26; two children, oldest 4 years. Last menstruation January last part. Quickening about 14 weeks ago. Says she is 7 months pregnant. Had cough sometime before, and vomiting or retching has accompanied this almost from the very beginning of pregnancy. For the last two months, respiration has been very laborious, and accompanied by grunting. So laborious was it, and so difficult was expectoration—sometimes threatening suffocation—the pulse was so rapid, and so various in frequency and strength, together with the impossibility of bearing food or drink on the stomach—and such was the exhaustion, that it seemed hardly possible for life to be much longer sustained. Auscultation discovered disease of both lungs. There was so much confusion in the sounds—coarse crepitus—whistling—bronchial—mucous—no egophony—dulness on percussion, &c. &c., that the diagnosis was not easy. Expectoration very small in quantity; mucus sometimes tinged with blood. Anasarca of feet and ancles. This state of things had existed full three months. The most striking of the rational signs was constant aching of the chest and epigastrium. This was owing in part to the rapid and labored expansion of the chest to permit air enough to enter the lungs to support life. Most bitterly was it complained of by one of the most patient sufferers I have met with in a long life.

There were symptoms of labor. The womb was not very large, but tense—more so than I remember to have seen before. Pressure made no difference in its outline. Examination per vaginam discovered the os uteri soft, dilated, and generally dilatable. The membranes were felt to be distended by a large quantity of liquor amnii. Perineum soft—dilatable, well lubricated. Labor was present, but the patient had felt no active pain.

What was to be done? Dr. ——, by whom I had been called for consultation, agreed with me that the only chance of recovery was in producing uterine action, and this could be effected by rupturing the membranes. This was done, and a very large quantity of waters followed. There was some relief. Active contractions soon came on, and in about two hours the child was born, a female, weighing probably from five to six pounds.

The afterbirth soon followed. Some coagula were removed from the vagina. The womb contracted perfectly, being felt as a small, round, smooth ball, just above the anterior portion of the brim. This is described because the womb presented a condition which I at least have not met with before. It was not produced by any unusual descent of the womb into the pelvis, for this was learned by examination, and not the least uterine uneasiness was complained of, upon such pressure as generally produces pain. The womb had contracted so perfectly that there was no portion of it in such a state as to *contract* upon pressure and produce pain. There was no *flowing*. Much relief followed delivery. Mrs. —— could now lie somewhat down. For weeks before, this was scarcely possible. As the cough still annoyed her, she got about one-eighth of a grain of sulphate of morphine in solution, which was followed by some mitigation of this leading trouble.

July 26th. I found Mrs. —— lying with a single pillow, breathing with comparative ease, with well-marked intervals, with very little movement of the chest, and without any *grunt*,—and, during my visit, without a cough. Skin soft;—pulse about 120, soft, and uniform—countenance perfectly calm, and natural. She was lying on the *left side*, which she had scarcely been able to do for the two months of her disease. Had passed urine freely, and without uneasiness. Her expression of relief was without qualification. For the first time she had taken food with relish, and had borne it perfectly. "What food?" I asked. "Gruel—toast and tea," was the answer.

Upon examining the abdomen, the womb was found well contracted, and no pain was produced by pressure upon it, or in any other part of the abdomen. Directions were given to the nurse to preserve the next urine, which Dr. B., the attending physician, had before agreed to examine chemically, to ascertain if it contained albumen.

27th. I was called early to see Mrs. —, and learned she had passed a very uncomfortable night; had been very *nervous*;—hot—thirsty—no sleep. The infant died in the night, and this being told her, increased her discomfort. No cough nor vomiting in the night; occasional difficulty of breathing. Such was the report. I found her more calm, and complaining of heat and thirst. Skin dry—hot generally, but the hands, arms, and head, most so. Abdomen flat, soft—not tender. A coagulum had passed from the vagina. Pulse rapid and quick, between 120 and 130. Urine abundant, and of natural color. Lochia natural. Breasts as before delivery. Urine, tested with nitric acid, showed slight traces of albumen. ℞. Pulv. potas. nit., ʒ i.; aquæ, ℥ vi. M. Half an ounce, every five hours. At night, if sleepless, ℞. Extract opii. liquid, gtt. xx. To be repeated if necessary.

28th. Sleep good—refreshing. In all respects much better than yesterday. Auscultation discovered much diminution of pulmonary trouble, and respiration very little disturbed. No milk—lochia natural. Continue treatment of yesterday. If no dejection, fluid extract of senna to-morrow morning.

It may be asked why a cathartic had not been given before. Many years ago, it was customary to give physic the day following delivery. In a case of grave disease following labor, the late Dr. John C. Warren was once called in consultation the second day after delivery. It was asked if a cathartic might not be useful. Dr. Warren said, no; adding, that he had long abandoned this practice, and for this reason, that as a puerperal patient had recently suffered so much pain, so much local and general disturbance, he could not but think that purging would only increase trouble, and might even produce grave disease, and that the best treatment under such circumstances was perfect rest, and especially of the abdominal viscera. I have followed this suggestion ever since. On the third or fourth day, a laxative may be given. A favorite one is castor oil in lemon juice, say from one to two drachms of each, fasting in the morning; a mixture some years ago recommended by the late Dr. Armstrong of London, and which very rarely fails to answer the purpose and with perfect ease to the patient. As Mrs. —— always vomits castor oil, senna was directed instead.

A question arose in this case, whether turning should be attempted after rupturing the membranes. Upon full view of the case—the length of time of the disease, and its obvious effects, and especially the uncertainty of consequences from the necessary violence of the operation—it was agreed to leave the case as it was, to the occurrence of natural labor, and to such artificial aid as circumstances might demand. There was this to support such a course. The presentation was perfectly natural—the occiput being to the left acetabulum, the forehead to the right sacro-ilac synchondrosis. It was quite low enough to be easily reached by the forceps, if indicated, and the *os uteri* was so dilatable as to be swept with perfect ease over the head, to, and above the symphysis pubis. Contractions soon declared themselves, and the head responded to the effort. The embarrassment of respiration was increased, and as loud complaint was made of the suffering, as the patient could utter. Efforts increased, and voluntary force soon came into exercise, and in about two hours from the rupture of the membranes, as was said above, delivery was accomplished.

August 2d.—Mrs. —— is rapidly convalescent; feels quite well. Respiration somewhat labored, and pulse more rapid than natural. Auscultation found pulmonary troubles much less. Has milk.

ACCIDENTAL RESECTION OF THE ELBOW-JOINT.

[Communicated for the Boston Medical and Surgical Journal.]

In September last, Richard French, aged 61 years, a hard-working mechanic, of good habits, while at work at a bench saw, a tub saw of twenty-two inches in diameter, with coarse and wide set teeth, by some means got his left arm in contact with it. The arm being flexed at the time, the saw engaging the outer or radial edge of the arm, both above and below the joint, passed through the soft tissues and diagonally through the humerus at the point where the bone spreads out to form the condyles, and in a similar manner across through the neck of the radius and the ulna, just below the coronoial process, and forward and inward so as to reach beyond the entire joint and out at the ulna edge of the arm—the entire joint dropping upon the floor.

Dr. Andrews and myself were called, and upon a careful examination, it was found that the remaining connection between the arm and forearm consisted of perhaps a little more than a third of the integuments, the biceps muscle, and perhaps small portions of the brachial artery, the median and brachial nerves, the accompanying cellular and adipose tissues, &c., all of which could have been severed by a slight stroke of the knife.

There was a fair state of the circulation in the limb, and after taking all things into account, it was decided to make an effort to save it. The wound was well trimmed of its ragged tissues, the bones squared off, several arteries ligatured, the limb extended, the bones brought in coaptation, the integuments drawn together by sutures, adhesive straps and bandaging to cover the wound as much as possible, and the limb laid upon an anterior jointed splint and placed in an elevatod position.

With this great loss of substance, a consolidation of the bones seemed to be the most favorable result that could be expected, and the treatment adopted was such as to favor that object. Very little inflammation ensued, and scarcely any sloughing took place. All things went on very kindly; and, at the end of eight weeks, the wound was well nigh cicatrized.

At this period a very little flexion was made and maintained, increasing it by little once in a week, or so, till it was brought to the right angle, adapted to his business, and it was decided to keep it in this position till bony union should take place. From time to time, as the limb was examined, it was found that there was a gradual improvement in strength and firmness; and it was confidently expected that a bony union would soon be established. But after an unusual delay, in looking at the limb, and at the time removing the splint it was noticed that the arm sprang back a little, upon which the patient was requested to flex it, and it was found that he had some control over it. From this time the plan of treatment was changed to frequent motion and friction of the limb. There has been a gradual increase of motion and strength from that time; and now he has the power of flexion and extension of the arm and of pronation and supination of the hand to a considerable extent. In flexing and extending the forearm, I think he has a swing of the hand of fifteen inches. The arm is shortened three and a half inches.

For the last three months, Mr. F. has been regular at his work, a chairmaker, from morning till night; and he says at some branches of his business he can perform as much as ever he could. In lifting from the floor the arm is as strong as the other; but in raising the weights with the arm in a horizontal position, he cannot do as much. He has a good use of his hand, excepting the little and ring fingers, which are flexed a little; still he has some use of them, with imperfect feeling. The ulnar nerve was destroyed. He has a posterior jointed splint fitted to his arm, which he wears constantly.

The question arises, from whence comes the power of extension? I will leave others to decide the question,—and I will simply state that supination precedes extension. Edward Barton.

Oswego, August 5, 1862.

ON THE TREATMENT OF ACUTE RHEUMATISM,

Considered with regard to the Liability to Affections of the Heart under different treatment.

[Read before the Royal Medical and Chirurgical Society, by W. H. Dickinson, M.D., Cantab., &c.]

This paper was based upon a tabular condensation of the cases of acute rheumatism which were admitted into St. George's Hospital during the five years ending on December 31st, 1851, and in whom the heart was, on admission, unaffected by the disease. The method of treatment adopted in any particular case depended very much upon the chance of the patient coming under one physician rather than another; and a comparison of the results would, to a certain extent, be a guide to the value of the means used. The cases, therefore, were classified according to the treatment made use of. As the main object of the investigation was to ascertain the effect of remedies in preventing cardiac mischief, the arrangement was not altered by measures adopted in consequence of its occurrence. The tables were fourteen in number. The first gave results of 8 cases in which venesection was early resorted to, other medicines being at the same time used. In 3 of the cases endocarditis or pericarditis was clearly recognized. In 1 there was incomplete evidence of cardiac derangement. The heart, therefore, was absolutely uninjured in only half the number. The patients remained in the hospital for an average period of forty-one days. Bouillaud, who is the great advocate of bleeding in this disorder, and trusted to it almost exclusively, expresses his opinion that such complications are the rule, and not the exceptions. The second table gives the result of 6 cases treated solely with repeated doses of calomel and opium. In two subsequent classes were seen the effects of the same medicines aided by saline draughts, with and without nitre. The progress of the disease under each plan appeared to be much the same. The total of 24 cases presented 6 of inflammation of the heart or its membranes, of which 2 proved speedily fatal. The average number of days in hospital under mercurial treatment was thirty-seven.

The action of some reputed spacific remedies was then considered. With regard to opium, reference was made to some tables published by Dr. Sibson in the *Association Medical Journal.* 21 cases are here recorded, in which, when the treatment was commenced, the sounds of the heart were natural. Opium was given in frequent doses, sometimes as much as a grain an hour, besides other remedies supposed to have an effect in rheumatism. No less than 14 of these cases, or exactly two-thirds, manifested while under treatment symptoms of valvular or pericardial inflammation.

The cases, 7 in number, treated with nitre alone, gave only 1 of cardiac complication. The average duration of the treatment was reduced to twenty-seven days. Further evidence in favor of nitre was deduced by comparing the results of cases treated with saline remedies alone, and those which had salines with nitre in addition. A table contributed by Dr. Basham to the "Transactions" of the Society was quoted. Of 67 cases of acute rheumatism treated with large doses of nitre, the heart being in each case unaffected at the commencement of the plan, 6 only had symptoms of inflammation of that organ.

In considering the treatment of saline remedies, the use of the term was limited in an arbitary manner. It was assumed that the salts which the potass and soda form with the vegetable acids undergo such changes in the system as to become equivalent, or nearly so, to the same quantity of alkali in combination with carbonate acid. Whether a certain quantity of potass is given as citrate, tartrate, or carbonate, the effect upon the urine and upon the system generally was held to be much the same. The arrangement was made accordingly. Those patients treated with an aggregate of such salts not reaching three drachms a day were considered as under saline treatment; those taking as much as three but less than four drachms, as under partial alkaline treatment; those taking from half an ounce to an ounce and a half, as under full alkaline tseatment.

Sixty-two cases appear to have been subjected to saline treatment, alone or with other remedies. These afforded a proportion of heart affection of 1 in 3·6. The conclusion was that salines in such quantities had but little influence upon the course of the disorder; when used in conjunction with more potent remedies, the result always correspond with the observed effect of the additional medicines when used independently.

With the increased doses, which the author distinguished as partial alkaline treatment, no diminution of the heart symptoms was observed, although the disorder terminated in rather a shorter time.

The full alkaline treatment was exemplified by two tables. It consisted in the administration of the salts which potass and soda form with carbonic and vegetable acids, in quantities varying from half an ounce to an ounce and a half daily. Half a drachm of the acetate, with twice as much of the bicarbonate, of potass, dissolved in the haustus ammoniæ acetatis of the hospital pharmacopœia, furnished an ordinary form of prescription. This was given every four or six hours, and sometimes made to effervesce by the addition of a little citric acid. Salts of soda were sometimes resorted to. The total of 48 patients thus treated passed through the dangers of the disease, with only a single instance of any cardiac affection. In the exceptional case the murmur came on within twenty-four hours of the commencement of the treatment, and did not prove permanent. The average number of days in hospital, when this treatment was applied simply, was 25, the smallest of all; when other medicines, as colchicum, were used in addition, five days were added to the average period. Dr. Garrod's published cases, in which bicarbonate of potass was used alone, were quoted as rather less successful than those at St. George's, in which neutral salts were given in addition. 24 of Dr. Garrod's cases afforded 3 of inflammation of the heart or its membranes. It was concluded that the carbonates of potass and soda, and those of their other salts which in the body are capable of being converted into the carbonates, exert an especial curative power in rheumatic fever, and, if given in time, will completely protect the heart from the dangers by which it is surrounded. Taking the proportion of heart affection under the alkaline system, 1 in 48, and, with this as a standard, reviewing the other plans of treatment, the result was striking. 113 cases where other remedies were used gave 35 instances of cardiac mischief, or a proportion of 1 in 3·2. Nitre, next to the alkalies, was the most successful. The general symptoms were shortened under its use, and the frequency of cardiac inflammation was reduced to 1 in 10. Regarding the other remedies which have been credited with the cure of acute rheumatism, it simply became a question which were useless and which injurious. Mercury allowed a proportion of cardiac inflammation of 1 case in four. Saline treatment gave a worse result. With bleeding, one-half of the cases became thus complicated. Under opium the mischievous influence of the disorder attained its maximum. Two-thirds of the cases so treated had the symptoms of endocarditis or pericarditis. With the exceptions stated, it was maintained that the more active the remedies, the more untoward, generally speaking, is the progress of the disease. It was shown that the use of colchicum retarded the recovery of the patient.

The practical deduction was, that acute rheumatism is best treated by giving at short intervals a solution of nitrate, acetate, and bicarbonate of potass in such doses that ten or twelve drachms of the two latter salts together are taken in the twenty-four hours. Half a drachm of the acetate, with a drachm or a drachm and a half of the bicarbonate, and ten grains of nitre, would answer the purpose.

A brief review of the history of the alkaline treatment of rheumatism concluded the paper.

Dr. GOODFELLOW had long been in the habit of employing the nitrate of potash in cases of rheumatism, in doses of ten grains to two scruples every four hours. This mode of treatment had no material influence on the duration of the disease, but prevented cardiac complications. In one case out of sixty only was the heart affected. He combined, however, with the nitrate the bicarbonate of potash. He always took the precaution in these cases of covering the chest with cotton wool. He had found this mode of proceeding most effectual in preventing cardiac disease. He had tried other remedies, however, in combination with the nitrate of potash, such as Dover's powder and the acetic extract of colchicum. Opiates at night with the colchicum seemed to cut short the duration of the disease, and prevent heart affection. Under this treatment also relapses were rare.

Dr. FULLER had long employed alkalies in cases of rheumatism. Under this treatment he had never found the heart become affected, except in two or three instances, where inflammation had set up within twenty-four hours after the commencement of the treatment. He was in the habit of employing large doses of the alkalies with a view of producing an alkaline condition of the urine. When this was effected, he thought that it was unnecessary to test the condition of the heart, as he considered the patient safe from such complications. The duration of the disease under this treatment he thought was decidedly lessened. It was not necessary that the alkali should be potash, for the carbonate of soda had the same effect. His experience, however, of the carbonate of ammonia was not productive of such decided results.

Dr. GULL remarked that alkalies had been extensively employed in Guy's Hospital in cases of rheumatism. Dr. Golding Bird was the first to recommend this plan of treatment. The practice, however, in his (Dr. Gull's) hands had proved a decided failure. He had never thought that there was any proof that there was an acid state of the blood or urine in these cases. The perspiration was not always acid in the worst forms of the complaint. In some cases the patients' sweat had assumed three distinct forms—alkaline, neutral, and acid. He could, therefore, see no expectation of relieving the patient by adopting a merely chemical plan of treatment. Colchicum, Dover's powder, hot baths, nitrate of potash, opium, and other remedies he had tried without satisfactory results. His experience led him, therefore, to treat the disease empirically. After all, he thought that it should be regarded mainly as an affection of the nervous system. He had been most successful by keeping the patient perfectly quiet, confining him to his bed, preventing the influence of all disturbing causes, and supporting him on the simplest diet. He had found rheumatism thus treated usually do well. Under it the heart was kept from disturbance, and consequently from anything like inflammatory disease. This treatment, with the addition of a little extract of taraxacum and peppermint water, administered as a placebo, had been most effectual in his hands. Out of sixty-four cases which he had thus treated, there was scarcely a case in which the heart had been affected. The author of the paper had adduced forty-eight cases in support of the treatment which he had advocated; but this was altogether too small a number on which to found a theory. Rheumatism was so different at various times, that it must always be studied in reference to what he might call its natural history. He doubted exceedingly whether the alkaline treatment could be regarded as specific against the occurrence of the heart disease. Dr. Goodfellow, who strongly advocated the employment of the nitrate of potash, seemed glad afterwards to add something else to his remedy. If the alkaline treatment was so successful, why did he do so?

Dr. STEWART agreed in the main with the observations made by Dr. Gull. He had found that the perspiration in cases of rheumatism was not always acid. On the contrary, he had found it in some instances intensely alkaline. The disease must be treated on common principles. Under simple remedies, with due regard to the conditions of the patient, the greatest success would be attained.

Dr. O'CONNOR differed from Dr. Gull in regard to his do-nothing treatment. On the whole he thought the general treatment by alkalies noticed in Dr. Dickinson's paper the best; but he considered that the bicarbonate of potash should be combined with the nitrate of potash or the acetate of ammonia, so that they might act upon the skin; the object of treatment being, in fact, to eliminate from the system a morbid matter. Rheumatism was a disease which must be treated according to the symptoms presented to us, and the condition of the patient. In exceptional cases moderate bleeding might be advantageously employed. In other instances, the administration of opium and calomel might be indicated. In fifty cases which he had treated at the Royal Free Hospital, only two women had been the subjects of cardiac inflammation, and one of those had cardiac affection on admission. All the patients recovered.

Dr. DICKINSON, in reply, stated that the doses of alkaline remedies administered in the cases which he had brought forward were much larger than those which had been resorted to in Guy's Hospital. To be effective the remedy must be carried out with energy and perseverance, and it was only in such cases that the treatment which he had advocated could be fairly tested.

Dr. GULL, in reply to Dr. O'Connor, remarked that so far from his treatment of rheumatism being liable to the charge of a do-nothing system, it was on the contrary, a most careful and active mode of treatment. The patient must be watched and subjected to the most stringent rules which the medical attendant could adopt. So far from doing nothing in such cases, he did everything that the nature of the case under his treatment required. By regarding rheumatism as a disease essentially differing under different circumstances, the practitioner who took into consideration the state of the patient and the indications presented to him, would, in his opinion, be more successful than the man who adopted a theory as applicable to all cases, and carried it out.

Dr. BABINGTON had been surprised that in the discussion which had taken place no allusion had been made to the influence of lemon-juice in the treatment of rheumatism. No remedy would appear to have been more effectual in controlling its duration, or preventing its cardiac complications.

Navy Medical Intelligence.

THE following letter, received by a medical gentleman of this city from one of the surgeons of the Mississippi squadron, has been handed us for publication.

MISSISSIPPI RIVER, July 23d, 1862.

My Dear Sir,—I find myself very comfortably situated here, excepting the two drawbacks from which we all suffer—intolerably hot weather and mosquitoes. Our fleet are now below Vicksburg, having re-passed that place one week ago, for the purpose of destroying a rebel ram which came from Yazoo river, and had the audacity to run the gauntlet of the combined fleets of Davis and Farragut; not one of the vessels of which had steam enough up to pursue her. For the purpose of destroying this rebel craft, our fleet fell down stream and stormed the city that evening, but in the darkness of the night the ram could not be found. We are now on the eve of another attack, which I hope will be more to the purpose.

You have no doubt heard through the newspapers all about our first passage of the batteries of Vicksburg: the engagement lasted two hours and was a severe one, notwithstanding our comparatively small list of casualties—16 killed and 40 wounded. Before the engagement came off, I was ordered temporarily to the gunboat Scioto, her surgeon being absent on sick leave. We were struck eight times—six times in the hull, and twice in our foremast. The first shot struck us in our water-way, on the starboard quarter; it was very close, for if it had been six inches higher up it would have cleared our quarter deck; the paymaster and myself were covered with splinters. The last shot dismounted the rifle Parrot gun on our forecastle, killed one man and wounded three—two slightly, one severely. The left arm of the latter was terribly shattered from the elbow down, so that I was obliged to amputate, and a pretty hard time I had of it, for my steward was thoroughly unaccustomed to the duties of an assistant, and I had to ligate the main arteries myself; he did not even know how to apply the tourniquet. Had I not been on deck, I believe this poor fellow would have bled to death; I saw him coming aft where I stood with his shattered arm hanging by his side, and the blood pouring down his pantaloons, leaving a pool at every step. I immediately ran towards him, compressed the brachial artery, and had him carried below. Before he got there he had fainted, but we revived him with stimulants, and after the amputation he was quite bright. I am glad to say he is doing well, and that his stump is now nearly healed. I had a fine opportunity of witnessing this fight, for I was on deck through the heat of the action. I obtained permission from the first Lieut. to be there, it being just as safe for me there as in the wardroom, which is used as a cock-pit on these small vessels. The shot whistled around us very lively that day; in the grey of the morning we could see every gun explode; there was something grand about it, yet it is a grandeur that I am free to confess I do not want to see very often.

During the last engagement, I was up the river at Cairo, having been sent there in charge of thirty wounded and sick sailors. On this expedition we met with an accident which, had it occurred in the night, might have proved serious. When about six miles below Fort Pillow our steamer ran upon a snag, and immediately commenced to sink. All was consternation on board. I had the greatest difficulty in keeping my patients quiet, some of whom were for jumping overboard. Fortunately for us all, Capt. Queen of the mortar flotilla, was on board, and immediately took command of the steamer (for the captain was totally inefficient and had no command over his crew), and ran her alongside the shore, and in five minutes she was resting firmly on the bottom in ten feet water. We got all on board safely off, and immediately sent up to Fort Pillow for aid. After remaining on the shore for ten hours, the Sanitary Commissioner's steamer Tycoon came for us, and carried us safely to Cairo.

I understand, since commencing this letter, that we are to leave this river to-morrow for Pensacola; we shall therefore leave Davis to take charge of Vicksburg and the ram. All hands are rejoiced at this, for we all long to see the blue waves of the ocean.

There is a great deal of sickness among our fleet here. I prescribed to-day for upwards of eighty; many of which, are cases of remittent fever. We have also a number of cases of intermittent. Diarrhœa and dysentery also prevail to a great extent. Quinine is our great remedy down here; that with elixir of vitriol, are our stand-bys.

Dr. Clark, whom you may remember, is down here and stationed on the Scioto.

The following assignments have been made of medical officers: Medical Inspectors, Perley and Cooledge to duty in the Surgeon-General's office and in the Military District at Washington; Medical Inspectors Cuyler, Keeney, Lyman, and Allen, to report in person to the Assistant Surgeon-General in St. Louis, for duty in the department of the Mississippi. Medical Inspector Mussey and Assistant Surgeon Parry to report to General McClellan in the Army of the Potomac.—*Am. Medical Times.*

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, AUGUST 14, 1862.

On Military and Camp Hospitals, and the health of Troops in the Field. Being the results of a Commission to inspect the Sanitary Arrangements of the French Army, and incidentally of other Armies in the Crimean War. By L. BAUDENS, inspector and member of the Council of Health of the French Armies, formerly Surgeon-in-chief, and first Professor of the Perfecting School of Val-de-Grace, etc. etc. Translated and annotated by Franklin B. Hough, M.D., late Inspector of the United States Sanitary Commission. New York. Baillière Brothers. 16mo. pp. 260.

THE translator of this interesting and valuable little volume was prompted to his work, as we learn from his preface, by the desire to render the results of the dearly-bought lessons of the Crimean war useful to the American armies in the present war. Surely, if prevention is better than cure, and if disease slays more men than sword or bullet, even in war, as it undoubtedly does, we cannot have too much of the experience of others to help us in averting the dangers which the past year has shown cannot be too carefully guarded against. The principles of military surgery are comparatively simple, and little can be said about them now which can present any great claim to novelty; but the varying circumstances of position, food, clothing, atmospheric conditions, etc. present so many new problems, bearing on the welfare of an army from day to day, and call for such constant ingenuity on the part of the medical officers, such a command of resources to meet the exigency of the moment with whatever means may be at hand, that the narration of such an experience is full of the novelty and charm of adventure. Such is the character of the book before us. It is crowded with interesting and valuable—valuable because practical matter, from beginning to end. The author was eminently fitted for the office which he undertook, having been at the time of his death a devoted and distinguished medical officer in the French army for thirteen years: during which he had been Surgeon-in-chief of the military hospital of Val-de-Grace, in Paris, for ten years, and the balance of the time Medical Inspector to the French Army in Corsica, Italy and the Crimea. He died on the 27th of January, 1858, from disease of the liver, contracted in the service of his government while in the east.

Turning over the leaves of this interesting volume we came to the chapter on rations, which contains many wise reflections and suggestions. It seems that the French soldiers had to try their teeth on the same kind of biscuit as that which has too often formed the staple food of our own regiments. Neither did they like it any better than our Army; and Dr. Baudens objects strongly to its use, where army bread can be procured. He says it "is extremely absorbent, acting on the stomach like a sponge, and after having exhausted the salivary glands in mastication, it absorbs the gastric juice, so that not enough remains for proper digestion." The translator, in a note, states some interesting facts with regard to the consumption of bread in our army, which show that the men have every inducement to use it in preference to biscuit, when they can get it.

"In the American army, the regulations allow, under ordinary circumstances, the issue of flour at the rate of twenty-two ounces daily to each man, in place of the same weight of bread. This flour, drawn by the Division, Brigade, Regiment, or Post, is baked by soldiers detailed for the purpose, in ovens made of sheet iron, covered with brick, stone, or earth, or in ovens of brick alone, and the savings that result go towards establishing a fund for the benefit of the posts or regiments concerned. There are probably no regiments in the service, in which a sufficient number of masons and bakers could not be found, to construct and operate these bakeries. For purposes of economy, they are often worked day and night, by relays of men. The savings have in some cases exceeded 33 per cent., and will, in most if not all, come up to 30 per cent. The economy of the arrangement appears in the difference of transportation, and in the quality of the bread, as well as in the savings upon weight: and the facility with which negligence and abuses can be corrected, is so great, that they may be checked upon first appearance. In Gen. Kearney's Brigade, of four regiments in Franklin's Division of the army of the Potomac, the savings in two months, in the winter of 1861—2, amounted to $3,436."

The French army suffered much from the want of a sufficient supply of vegetables as our army has done, and as all large armies must; it is almost impossible to keep up a constant supply of these antiscorbuties in quantity sufficient to keep the fluids in a healthy condition. And notwithstanding the impression that every Frenchman is by nature a cook, we find the same complaints as among our own troops, of the bad cooking in some of the regiments. Soup, we believe, constitutes a much larger proportion of the diet of the French than the American soldier, and the fare of our troops would be greatly improved by substituting it to a greater extent for the salt meat which they turn away from so often with loathing. "Soup makes the soldier," says M. Baudens, "but its quality depends upon the cook."

"Every soldier takes his turn in cooking, as he does in mounting guard: but this is wrong. In the same regiment, some companies eat good soup, and some bad. The army officers do not usually trouble themselves with these details, so important—for the first condition of health is that the stomach be satisfied. In the Crimea, the troops that best sustained privations and fatigues, were those commanded by colonels careful of their men. Let us take an example of two regiments, which left the camp of Saint Omer at the same time, arrived together in the Crimea, in October, 1855, encamped side by side, endured the same vicissitudes of weather, and performed the same services: the one preserved on the 1st of April, 1856, 2,224 soldiers of an effective force of 2,676 men, while the other, with an effective force of 2,327 men, had 1,239 only left—and these losses did not include those wounded in war! In the armed naval service, our commanders of vessels supervise the preparation of meals for the crews, and observe most punctually the hour for breakfast and dinner, which is never delayed, anticipated or interrupted. It is earnestly to be wished, that the same scrupulous care might find its way into our land armies, and that these wise hygienic measures should never be infringed upon, except in cases of absolute and manifest necessity. We pay rewards to those colonels of cavalry whose squadrons preserve the greatest number of horses, and these rewards excite an excellent and profitable emulation. We could have similar, but more important and happy results, were we to grant similar tokens to colonels, whose battalions preserved the most men in best health." All this is equally worthy of consideration by our own officers.

Of the use of stimulants in the French army, M. Baudens says, "Wine does not form a part of the ordinary rations of the soldier in a campaign. That which was distributed to the army of the East was generally good. Each soldier drew half a pint, and the officers were allowed to take daily from the stores, besides their rations, a litre (0.264 gallon) of wine, for which he paid fifteen cents, while the private dealers sold wine for three or four times that sum. During the epidemic, Marshal Pèlissier doubled the rations. For our sick we had generous wines, which the adminstration gave liberally. Brandy alternated with wine, the ration being about a third of a pint. Taken immoderately, brandy is very dangerous in winter, and exposes the drunkard to perish from cold; but in moderation it excites a salutary reaction. M. Laurent, a ship lieutenant, had charge day and night of a battery before Sebastopol; he preserved the health of his cannoneers through the winter by giving them, at stated intervals during the night, three warm grogs of brandy, through which the system gained great power to resist the cold. Coffee was given out instead of wine or brandy, the rations consisting of sixteen grammes (about half an ounce) of coffee, and twenty-one grammes (three fourths of an ounce) of sugar. It has become among our soldiers in campaign a healthful and favorite drink, and is found to prevent the intestinal looseness so frequent in warm climates. The Arabs take daily, several light infusions of coffee, and when in their country, we ought to be governed by their traditional usages, founded upon reason. The soldier, by steeping some pieces of biscuit in his coffee, makes at will a very nutritious soup, of which he never gets tired. Coffee is especially useful on a halt, or in the trenches, and, in short, anywhere when the soldier has not time to prepare his soup. It refreshes and enlivens, while it does not prevent sleep after a day of fatigue in the open air. It recommends itself to the government, being easily kept and carried. It should not be ground long before use, because it then loses its volatile aromatic principles. It may be roasted and distributed in the grain. In the Crimea we gave the troops little mills, which readily prepared it for infusion. The ingenuity of the soldiers furnished means often original, and not always prosaic, for preparing it. I have seen in our camps, the coffee ground by a ball rolled about in the half of a bomb shell."

With regard to the cleanliness of the French troops, as contrasted with the English, we find the following :—

"The habits of cleanliness which distinguished the English army, should have been followed in our camps. They washed their body linen in warm water, and changed twice a week, but our soldiers were not so careful. Filthiness checks the functions of the skin, and engenders vermin. When a patient arrived at Constantinople, we first washed his garments in boiling water. On a review day, our soldiers presented, by their new and well-brushed uniforms, an irreproachable military aspect: but these fine battalions left, as they passed, the marked and well-known stench of the barracks. Our quarters for troops shine with the greasy filth of daily neglect. It is forbidden—would any one believe it?—to scrub the floors, the benches, and the tables, for fear of wearing them out. Why cannot a barrack be kept as neatly as a ship, and why cannot floors, waxed and rubbed by the soldiers, take the place of the imperfect tiling in the rooms? We have introduced, at length, this luxury into our military hospitals, in spite of the opposition of routine; and, upon entering the barracks, may ask with surprise, why such useful reforms are so slow in finding their place here?"

M. Baudens condemns the huts used by the French soldiers in the Crimea, the floors of which were several feet below the surface of the ground, as being very prejudicial to health; and Dr. Hough says of the somewhat similar arrangement adopted by our soldiers of the army of the Potomac, that "The pernicious habit of sinking the floors of tents below the surface of the ground has almost always been punished by increased sickness and mortality. Upon many occasions, while inspecting the camps in winter quarters, in the army of the Potomac, in the winter of 1861—2, the writer has observed that the sickly companies and squads were those that lived in tents with excavated floors. This disregard of health should be charged to the officers permitting it. The sides and floor of such a tent can never be dry, or the ventilation perfect, unless, perhaps, in cases where an open wood fire with a good draught is maintained. Carbonic acid gas will settle into the bottom of the tents, where the men lie, and typhoid fevers, rheumatism, and catarrh will swell the numbers attending the sick call and filling the hospitals. The practice prevents the frequent removal of tents to new grounds, and renders cleanliness impossible. The floor of a tent, somewhat raised above the natural surface, well drained, and previously dried by the burning of brush, presents the opposite conditions for the maintenance of health."

In the matter of clothing, the French army availed itself of the customs of the region they were in, as they had previously done in Africa. From the native Tartars they borrowed the *Crimeenne*, an overcoat which proved of great value, some of the features of which might, we think, with great advantage be adopted by our own troops. In fact, it has seemed to us that a great-coat could hardly be contrived which so poorly answers the purpose as that put upon our soldiers. The cape is too small, the cloth is not thick enough—being made single-breasted it gives but a scanty covering for the chest, it is without lining, and does not protect the neck sufficiently. A hood which can be drawn over the head, such as forms a part of the *Caban* hitherto worn by the French soldiers, is a capital thing. We have been struck with the air of comparative comfort presented by a French soldier on guard in a pouring rain, with the hood of his *Caban* drawn over his fatigue cap and about his face, completely sheltering the neck from wind and rain. The *Crimeenne*, it seems, is an improvement even upon this. M. Baudens deocribes it as follows:—

"The *Crimienne* is a long and ample, hooded cloak, with a little cape, and falls to the middle of the leg. The cloth is coarse, but warm, and almost water-proof. Excepting the general officers, who wore an overcoat trimmed with fur, everybody wore the *Crimienne*, and it replaced the African *burnous*, and the *Caban*. It proved very useful, and will perhaps be regularly adopted, as it guards the soldier from diseases acquired so often by passing suddenly from the high temperature of the guard-room to the cold outside air, in mounting guard at night. The hood shields the head and neck from the cold, the wind and dampness : prevents the engorgement of the glands of the neck, and the bronchitis, to which they are liable from the chill. A preparation of India-rubber would easily render the little cape which covers the shoulders water-proof. This garment would replace with advantage the blanket, which the soldier carries upon his knapsack, and which gives him so ridiculous an appearance. The blanket, so awkwardly perched upon the knapsack, when wet, is very heavy, and dries with difficulty. When dry, it weighs about three pounds and a half. Therefore in summer, in order not to load the shoulders of the men too much, they give them only a half blanket, the other half being kept for the approach of winter. The storage of these blankets is not easy, and the army runs the risk of being deprived of them if their supplies cannot follow them. But the *Crimèenne* has none of these inconveniences, is not so heavy, and can be made still lighter, and the knapsack is relieved from the difference in weight."

French soldiers, it seems, do not wear flannel under-shirts, but a belly-band of flannel instead. This, M. Baudens complains, the conscripts did not appreciate the value of, and laid it aside or lost it, to their great injury.

The French surgeons were overtasked very often by the arduous duties imposed on them, and were compelled to extemporize a class of dressers from among the troops who did most efficient service. This hint is too valuable to be lost. In the ranks of the new levy there must be many who will be entirely competent for such duty, and an immense amount of suffering might be spared by training an efficient corps for this service. We quote M. Baudens again.

"It should be remarked that, at times, the medical staff was so much pressed that human endurance and the most zealous activity could not supply the requirements. However numerous, in time of battle or of an epidemic, they proved very inadequate to our wants. When a half day's battle sends to a hundred physicians in the field hospitals six or seven thousand wounded at a time, could they even place so much as a single compress and bandage upon each wound? Much less could they perform upon each the operations indicated by surgery.

"To supply this want there was created, in the Crimea, a class of attendants of subordinate grade, who rendered very important services. Our system of recruiting makes our army the vivid image of our society, and assembles under the flag its manifold elements. Among the convalescents were often found men of education, bachelors of arts, and even lawyers. Some of these returned to their families on sick leave, but we retained those who appeared capable of assisting the physicians. These new duties, by employing their minds, hastened their recovery, and some, becoming fully restored, returned to their corps, to be replaced by others. These useful auxiliaries are called *soldier-dressers*. Scrive, Thomas, and Lustreman, in the Crimea and at Constantinople, were warm in their praises of their promptitude and skill. When the typhus decimated our medical corps, we feared, for a time, that we should be left without physicians, and urged the Minister of War to send some as soon as possible : but he had none at his disposal, and recruiting failed to supply the want.

Thanks to our soldier-dressers, we triumphed over our serious difficulty: but without them, our medical service would have been impeded. These subaltern agents evinced a zeal, aptitude, and intelligence, rarely witnessed except in the French army. They were intrusted with the care of the visiting pass-books, the distribution of the food and the medicines prescribed, the application of simple dressings, poultices, blisters, and similar services. They prepared with great skill the splints for fractures, and even applied, in a faultless manner, under the direction of the chiefs of the service, the dressings of amputated limbs."

Want of space forbids our entering into a full analysis of those parts of M. Baudens's volume which treat especially of his surgical and medical experience in the armies of the East. They are replete with wisdom, and are as valuable as those portions which we have most dwelt upon, which mainly concern the hygienic condition of the soldier. The work is a precious contribution to the literature of military medicine.

Infantile Erysipelas—Application of a mixture of Tannin, Alcohol and Chloroform—prompt Recovery.—We know how grave a disease infantile erysipelas usually is: is the erysipelas which is sometimes developed about vaccine vesicles less serious in its character? We are quite disposed to think so. However the case may be, the method employed by M. Loiseau, of Montmartre, and said to have been followed in many cases by excellent results, although as yet it has been tried only in the erysipelas resulting from vaccination, seems to us none the less deserving of being brought to the attention of our readers.

Being called to attend a little girl about a month old, who had been vaccinated a week previously, M. Loiseau found four very large vaccine vesicles, on each arm. The circle of erysipelas which surrounded each vesicle, ran into the next, and thus the whole anterior surface of the arm was covered by it. Her pulse was very frequent, and the agitation extreme: the infant had refused to nurse since morning, and cried incessantly. M. Loiseau applied immediately to the whole of the affected surface a mixture of tannin in brandy, with a small quantity of chloroform. The application was repeated at first at intervals of ten minutes. The child ceased crying almost immediately, took the breast and went to sleep. The application was continued every quarter of an hour, then at intervals of half an hour until night. The child was seen on the following morning: it was calm and had continued to nurse as usual, and the erysipelas had made no further progress.

Undoubtedly one would not presume to say in this case that the erysipelas might not have been self-limited: but we agree with M. Loiseau in regard to it, that the immediate relief to the suffering was very probably due to the treatment.—*Journal de Médecine de Bordeaux* from the *Gazette des Hopitaux.*

From an admirable letter on army medical service, published in the *Buffalo Medical and Surgical Journal*, by Dr. Sanford B. Hunt, we take the following extract.

"*Amputations.*—It is universally conceded that amputations on the field are far more successful than secondary operations. The soldier does not come off the field horrified and crushed down by unexpected and sudden shock, like the victim of a railroad accident. He has his wits about him, had some notion of being hit, finds it hurt him less than he expected, and so meets the amputating knife with a nervous system capable of enduring further shock. In fact he is usually in a state of exaltation that upholds him during the ordeal. Thus it happens that very high amputations of the thigh, even, have, with proper after treatment, a fair chance of success, if performed early. But when the other course is taken, when the sufferer lies all night on the field, is borne in the morning to an ambulance, jolted over bad roads, and transferred, days afterwards, to a hospital, he has become worn, jaded, incapable of endurance, irritative action has set in and the secondary amputation is fatal.

"The truth of these remarks is an axiom, yet there are a vast number of cases which seem compelled to be exceptions. A bullet strikes the upper third of the femur, buries itself in the bone, perhaps without absolutely fracturing it, and the case becomes one of doubt, justifying delay. So too with wounds of the joints, especially the elbow, which somehow endures disaster better than any other joint. Such cases are those which reach the General Hospital and come under the care of its surgeons. At first, immediately after the Williamsburg battle, the disposition in the various hospitals at Fortress Monroe was to operate. The knife was used with heroic freedom. It would be invidious to specify the surgeons who made that raid upon humanity. A bullet was looked upon as a prize worth any amount of digging for, and some ghastly and even fatal wounds were inflicted by the scalpel in a prolonged search for an unoffending pellet of lead. Amputations seemed particularly attractive, and many a man lost his thigh at the upper third, to die next day and exhibit on the post-mortem a fracture splitting the bone into the acetabulum. It is hardly necessary to say that these were cases in which no operations should have been had. The opportunity for success was lost when the surgeon on the field decided not to amputate, and in the General Hospital it only remained to extract such fragments of bone as could be readily reached, to keep the limb moderately extended, and then give the poor fellow a chance to pass the dangers of tetanus and drag through the perils of an exhausting discharge with its irritative fever, and perhaps its purulent absorption. Truly this is a melancholy choice, but when you know that the patient will die under the knife, it is only fair to let him fight it out with Nature.

"The lesser amputations, however, escaped this criticism, except when hospital gangrene supervened, as it did at the mis-named Hygeia Hospital. The result of the amputation depended on the magnitude of the tissues cut, and in arms or legs the termination was mostly favorable, excepting always hospital gangrene. It was, I believe, only in the Hygeia Hospital that this terrible scourge exhibited itself. That building was formerly a hotel inclosing a court yard, the yard itself bisected by a long two story building, and a mouldy wooden pavement covering the ground and forming a cloaca for dampness and decay. Shaded with trees, gloomy and ill-ventilated, it was no wonder that gangrene showed itself in wards which so far as sanitary police was concerned, were well kept. The fatality from this source became so great—killing off so many of the capital operations—that Medical

Director Cuyler closed the building and had nearly evacuated the premises, when the seven days retreat compelled its re-opening and renewed the gangrene. This hospital was therefore finally abandoned about the last of July.

"The mortality from capital operations should not, however, be attributed altogether to hospital gangrene. It was quite as bad as it could be in other institutions. Some of the distinguished eastern surgeons who volunteered their services, would be troubled now to find one of their patients on this side of the Styx. One such operated largely in Mill Creek Hospital, ligating arteries, resecting bones and amputating. Of all on whom he laid his knife, not one is now alive to tell the tale of heroic surgery. I make this statement with a knowledge of its truth. About this time Brigade Surgeon John W. Hunt, a Western New Yorker, took charge at Mill Creek. Preliminary to other reforms, he carefully locked up the surgical instruments and relied on a pair of scissors and a forceps to treat several hundred wounded. He certainly killed nobody, and when the records of that hospital shall be written up, they will show a triumph of conservative surgery. Not only was the mortality largely decreased, but in hosts of cases the patients were restored with useful limbs With Surgeon Hunt,—who, I am sorry to say, is not a relative of mine—should rank his able friend, Surgeon McCay, of the Chesapeake Hospital, a mammoth institution, unfavorably constructed and located, but nobly managed. And here let me add that a full breast of the milk of human kindness is a grand essential in an army surgeon. Hunt and McCay were kind-hearted as well as skilful and judicious.

"The result of resections of bones will hardly warrant a more favorable record than I have bestowed on high amputations of the thigh. Possibly in civil practice or in the hospitals, better results might be obtained. They were not successful at Fortress Monroe, and conservative surgeons did not hesitate to condemn their frequent employment.

"In the ligation of arteries, the rules of general surgery seemed strictly applicable. When great arteries are tied, the parts beyond are very apt to die, yet there is far less objection to these ligations than to resections and amputations. A patient is bleeding from a deep-seated branch of the external carotid, death is imminent, and the tying of the common carotid will at least prolong, if it does not save, his life, so that the surgeon can reconcile his conscience with his knife, which, by the way, is a somewhat important, though often neglected, preliminary to any important act in military surgery.

"A word should be said here about the probable proportion of operations to cases. On the field it is large, of course, and I have endeavored to show there is the place where most of the operative surgery should be done. But as cases reached the great hospitals at Fortress Monroe and Newport News, the surgeon not eager to cut, would find that the regimental surgeons had done pretty nearly all that was justifiable, and that nothing was left for him, except a large faith in nature, and a few secondary operations rendered necessary by complications occurring at a later day. They will not average one operation to a hundred cases. It remains to treat the majority *pro re nata*, to apply cerate to the kindly wounds, and water dressings to those inflamed, to watch carefully their cleanliness, to support with wines and tonics under exhausting discharges, to temper irritability with opium, and to secure for them as good a diet and as pure an air, as circumstances will permit.

"All this does not accord with the picturesque idea of an army surgeon with sleeves rolled up, and up to his ancles in blood; but such pictures belong only to the battle-field, and they are far less common than the lively imagination of 'Sawbones' would paint. To sum up, then, the treatment of gun-shot wounds is practically more simple than it has seemed to our unaccustomed minds. Operations for their relief are most successful upon the field, while in hospitals and under the depressing circumstances that surround them, it is the dictate of a prudent judgment to avoid, so far as possible, the use of the knife, which is in fact unnecessary in nine cases out of ten."

Dr. Armsby and family, of Albany, returned from Europe by the Arabia. He has resigned as United States Consul at Naples and returns to his profession, and to the Medical College and Hospital with which he has been identified since their foundation.

Local Anæsthesia.—Mr. Fournie recommends for the induction of local anaesthesia, a mixture of equal parts of glacial acetic acid and chloroform. He states that complete insensibility of the part may be obtained in five minutes.—*Phar. Journal.*

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, August 9th, 1862.

DEATHS.

	Males.	*Females*	*Total.*
Deaths during the week,	53	46	99
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	50.8	49.4	100.02
Average corrected to increased population,	..	..	113.19
Deaths of persons above 90,	..	1	1

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
17	24	0	2	0	0	4	3	0

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.—For the week ending July 26th.

Mean height of Barometer,	29.953	Highest point of Thermometer,	76.0
Highest point of Barometer,	30.186	Lowest point of Thermometer,	51 0
Lowest point of Barometer,	29.830	General direction of Wind,	W.S.W.
Mean Temperature,	63.9	Am't of Rain (inches),	1.03

For the week ending July 19:—Mean of barometer, 29.959; highest point of barometer, 30.284; lowest point of barometer, 29.760. Mean of thermometer, 70.8; highest point of thermometer, 88; lowest point of thermometer, 48. General direction of wind, W.S W. Amount of rain (in inches), 1.90.

Received.—Cases in Country Practice, No. VI. By Dr. John Ellis Blake, Middletown, Conn.

Died,—July 30th, at Pilottown, S. W. Pass, Mississippi River, Dr. C. H. Wheelwright, U.S.N., M.M.M.S., aged 49 years.

Resident Fellows of the Massachusetts Medical Society, are notified that they can obtain their numbers of Braithwaite, Part XLV., by calling at this office.

Deaths in Boston for the week ending Saturday noon, August 9th, 99. Males, 53—Females, 46.—Accidents, 4—apoplexy, 1—inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 1—inflammation of the brain, 1—bronchitis, 3—cancer, 2—carbuncle, 1—cholera infantum, 24—consumption, 17—convulsions, 3—cynanche trachealis, 1—diarrhœa, 1—dropsy, 3—dropsy of the head, 8—dysentery, 4—scarlet fever, 2—typhoid fever, 3—disease of the heart, 3—marasmus, 2—measles, 1—old age, 2—peritonitis, 2—pleurisy, 1—premature birth, 2—puerperal disease, 1—disease of the spine, 1—teething, 1—unknown, 2

Under 5 years of age, [illegible]—between 5 and 20 years, 8—between 20 and 40 years, 16—between 40 and 60 years, 8—above 60 years, 11. Born in the United States, 83—Ireland, 12—other places, 4.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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CASES IN COUNTRY PRACTICE.

By John Ellis Blake, M.D., of Middletown, Conn.

[Communicated for the Boston Medical and Surgical Journal.]

No. VI.—Non-pedunculated Fibroid Tumor of the Uterus.

July 10th, 1861. I was called to a neighboring town to see, in consultation, Mrs. ——, aged about 36. She had, I was informed by her attending physician, a large tumor of the uterus, which had been extruded so as to present in the vagina. The process of expulsion had been accompanied with severe pains, resembling the regular throes of a natural labor. The hemorrhage had been free, but the patient (who was a large and robust woman) did not seem to be very much prostrated by it. Many attempts had been made, I was informed, to get a ligature over the tumor for the purpose of strangling it, but all had failed. On examination, nothing like a pedicle could be felt, but the part of the tumor within the womb seemed fully as large as the extruded part, and the thin edge of the os uteri could be felt upon it. I made up my mind that I had to deal with a tumor starting from a broad base from the uterine wall, and that it would be quite difficult, from its size and shape, to ligate it. I endeavored, however, to do this, but could not succeed. After consultation, it was decided that I should attempt its removal by cutting, and that this should be done cautiously on account of the danger of hæmorrhage. The tumor being drawn downwards with claw forceps, I removed a portion the size of an English walnut. This was followed by some little bleeding. A repetition, however, of the attempt, by which a piece about twice the size of the first was cut away, gave rise to a most alarming hæmorrhage. For twenty minutes every appliance that we could bring to bear—as ice, tampons wet with liq. ferri. persulph., &c. &c.—was of little avail in checking the bleeding, which was at length stopped by the tampons, firmly pressed in the vagina, and maintained there by a bandage between the limbs, attached behind and before to a "binder," around the body.

The portions of the tumor removed, had a rather suspicious appearance. Showing in section of a bluish white color, and cutting with a creaking sound, I feared lest the tumor might prove to be malignant. The microscope, however, showed nothing that might not be expected in the common fibrous tumor, and nothing more was found in a section of it which Dr. C. Ellis, of Boston, was kind enough to examine for me.

The tampons were removed, as soon as it could be done with safety. About ten days or a fortnight afterwards, at the urgent solicitation of the patient, renewed attempts were made to effect the ligature of the tumor, but unsuccessfully.

On consultation, it was then decided that the risk of bleeding should be taken, and that the mass should be removed. I effected this with a pair of stout curved scissors, using the left hand as a director, the tumor being cut out piecemeal. The several portions united, measure about twelve inches in circumference now, and the whole mass before contraction, and with its fluids, was larger than this. The operation was easily done, save where it was necessary to work within the os uteri, as some little care was here required to avoid injury. This time there *was but little bleeding*. I account for this in this way. In the London *Lancet*, March 16th, 1861, Dr. J. Baker Brown relates several cases, where uterine non-pedunculated tumors of the fibroid variety were successfully treated by cutting into them, and gouging out a portion of their substance. To do this the more readily, Mr. Philip Harper has invented a set of gouges which remove *cores* of different sizes. It is claimed that by repeating this coring process, the vitality of these growths is destroyed, and that they become absorbed. Now if this idea of Dr. Brown's be correct, why may we not suppose that, in the case just related, the removal of portions of the mass by the first operation did destroy its life in a measure, cause contraction, and almost put an end to its vascularity? If this result can be depended upon, there will be an end to the clumsy unsurgical operation by ligature; tedious, and not wholly free from danger. The first step will be to remove a core from the tumor, the second to extirpate it by the knife or scissors without further delay. Time and well-devised experiments will perhaps show this to be the best way.

In conclusion, I would say that the patient recovered without a bad symptom, and is now about, a healthy woman.

A FAMILY MADE SICK BY VEAL SOUP AND CUSTARD PIE.

By B. F. Taft, M.D., Blackstone, Mass.

[Communicated for the Boston Medical and Surgical Journal.]

On the 28th of July ult., Dr. Wilder, of Blackstone, Mass., was called about 8 o'clock, P.M., to visit a family consisting of the father, mother, five daughters and one son, the youngest being 16 years old. They lived on a farm in a healthy location, and had been in good health previously. Their dinner on the day mentioned consisted of veal soup, bread and butter, and custard pie. They all ate of the soup and pie except two of the daughters; one of whom ate soup, and bread and butter, but no pie, the other ate bread and butter and pie, but no soup. They felt nothing unusual until about 6 o'clock, when they sat down to supper, and the father was seized, while at table, with violent vomiting, and shortly after commenced purging. The mother and three of the daughters were soon taken in a similar way. The son went for Dr. Wilder, and while in his office he complained of feeling sick at the stomach, and the doctor gave him a dose of tr. opii. camph. and tr. rhei., when the sickness and pain subsided, but he had several evacuations from the bowels. On arriving at the house, Dr. Wilder found the five above-mentioned vomiting and purging, the parents being the most violently affected, there being some blood in the discharges, the extremities cold, and the pulse being hardly perceptible at the wrist. They complained of severe griping pains about the region of the stomach. Dr. W. gave them brandy and laudanum, but the vomiting and pain continuing, he gave ginger tea and paregoric, and afterwards a pill of opium, camphor and calomel. They did not seem to improve, and at midnight, being a partner of Dr. Wilder's, I was called, and upon consultation it was agreed to give an anodyne composed of chloroform half a tea spoonful, camphor ten grains, morphine one fourth of a grain, with a view to arrest the pain and vomiting. To the father, whose pulse was still weak, and the extremities cold, cayenne pepper tea was given in small quantities, and a sinapism was applied over the stomach. About 1 o'clock they all felt easier, and a little before 2 a smaller dose of the above mixture was given to such as were not quite easy. At 3 o'clock all the patients were in the realms of Morpheus. At 6 o'clock, A.M., of the 29th, the physicians left, ordering the patients to take each a table-spoonful of Epsom salts, and if they were thrown up to take a similar dose an hour after, and to repeat it hourly until a dose was retained. None of the family vomited except the father, and he did not take a second dose of the salts; he had several discharges from the bowels, and continued to vomit occasionally through the day.

On the evening of the 29th, I visited the family again and found them all improving, except the father, whose worst symptom was the vomiting; his pulse was full and strong, 100 beats per minute. A sinapism eight by ten was applied over the stomach, and after it had been on half an hour one half of a Seidlitz powder was given, which was retained. In applying the sinapism, the patient called my attention to his umbilicus, where a rupture was discovered the size of a large grape, which was easily reduced and a compress and roller were applied. In one hour from the time when the first half Seidlitz powder was given, the other half was given and retained. The patient slept very well all night, vomited a few times on the

30th, but had no discharges from the bowels. On the 31st, I was again called about 4 o'clock, P.M., the patient thinking he needed something to act on the bowels. He was ordered to take a Seidlitz powder, and if there were no discharges by 9 o'clock, P.M., he was to take three of the compound cathartic pills, of the U. S. Dispensatory, which produced the desired effect. He recovered without further treatment, as did the rest of the family.

It would seem that the vomiting and purging in these cases was caused by eating the soup and pie together; as the girl who ate soup without pie, and the one who ate pie, bread and butter but no soup, were not at all affected.

ON THE TREATMENT OF SUSPENDED ANIMATION UNDER THE INFLUENCE OF CHLOROFORM.

By William Marcet, M.D., F.R.S., Assistant-Physician to the Westminster Hospital, etc., etc.

In the *Medical Times and Gazette* for July 20, I offered a few remarks on the phenomena attending the accumulation of vapors of chloroform in the blood, and insisted on the importance of watching the state of the respiration as well as that of the pulse during the exhibition of this anæsthetic agent. The number for October 28, of the same periodical, containing two new cases of death from chloroform, I may be perhaps allowed to return to this subject, my present object being to suggest a mode of treatment in these cases which to my knowledge has not yet been proposed; and considering the failure which has nearly constantly attended every attempt to restore animation suspended by an overdose or under the influence of chloroform, the following suggestions will be most probably of interest, and also, I trust, of practical utility.

It has frequently occurred to me that, in many instances, the final cause of death from chloroform was owing, not only to its anæsthetic properties, but also partly to spasm of the glottis. I do not mean, however, that the passage of the vapor of chloroform through the glottis and larynx has the power of causing an involuntary closure of the glottis; and I cannot agree with Dr. Black, of St. Bartholomew's Hospital, who states, "Any concentration of the vapor of chloroform which can be breathed is safe; any condition of dilution which causes the patient to cough or hold his breath is dangerous, and if persevered in for half a minute, may be fatal." I believe a spasmodic closure of the glottis to take place occasionally from the action of the chloroform which has been absorbed into the blood, and that this obstacle to the admission of air into the lungs, taken in connection with the narcotic or anæsthetic effect of the chloroform circulating in the blood, has been in some, perhaps many, cases the actual cause of death. Should this view be correct, it will follow that if air be allowed to enter the lungs by means of tracheotomy, or by opening the glottis with a trachea-tube, or any other operation which will effect the same purpose, life will in such cases be saved.

It may be inferred that spasm of the glottis takes place occasionally under the influence of chloroform.

1st. Because several substances possessing anæsthetic properties are positively known, when present in the blood, to have given rise to closure of the glottis.

2nd. Because the symptoms of death from chloroform are consistent, more or less, with death from sudden asphyxia.

3rd. Because the post-mortem appearances after death from chloroform may be accounted for by assuming that death has taken place from asphyxia.

In the three following cases, spasmodic closure of the glottis resulted from the presence of alcohol, carbonic acid and sulphuretted hydrogen in the blood, the physiological properties of these three substances being allied to a certain extent to those of chloroform; and in two of the instances under our consideration, life was obviously saved by tracheotomy.

A very interesting case is reported in the volume of the Medico-Chirurgical *Transactions* for 1837, entitled, "Case of Recovery from the Insensibility of Intoxication by the Performance of Tracheotomy. By George Sampson, Esq." The patient, aged 31, was brought to Mr. Sampson's house in a state of complete insensibility after drinking freely of beer, and more than a pint of brandy; all voluntary motions had ceased for at least four hours. The stomach-pump being used, drew off between three and four pints of fluid, the greater part of which appeared to consist of brandy. Every means of exciting vomiting was afterwards vainly applied; the man became more comatose, his countenance turgid, and breathing more and more difficult: the pulse grew fainter, and was at last scarcely perceptible. He was then removed to the Infirmary, and a consultation was held with the other medical attendants, who arrived in the course of half an hour; at that time every appearance indicated the rapid approach of death, and there was no ground to justify a reasonable hope of recovery. It occurred to Mr. Sampson when standing by the patient's bed-side that the extreme difficulty of respiration was owing to the existence of "collapse of the glottis," and with this view of the case, he strongly urged that a trial should be given to the operation of tracheotomy. The operation was accordingly performed, without loss of time, by Mr. Andrews. The trachea was no sooner opened, than the distension of the veins about the head and neck subsided, the violent efforts of the respiratory muscles ceased, and in about half an hour regular and easy respiration through the wound was freely established. At the same time the pupils became slightly sensible to the stimulus of light, and the pulse returned to the wrist. He continued quiet during the night, but had no return of consciousness till the following morning. The case proceeded very satisfactorily, and the wound being healed in about three weeks, the patient was discharged cured.

This case is particularly interesting, for the analogy between the physiological action of alcohol and chloroform has been quite satisfactorily demonstrated by Messrs. Lallemand, Perrin, and Duroy. Like alcohol, chloroform acts first on the brain, then on the spinal system, and finally on the sympathetic; the brain exerts a certain power of concentrating within its tissue both chloroform and alcohol; the period of excitement produced by chloroform, is not unlike that of alcoholic intoxication; and insensibility equally results when a sufficient dose of alcohol or chloroform has penetrated into the circulation.

If alcoholic poisoning is positively shown to have threatened life from asphyxia owing to spasm of the glottis, I see no reason why death from chloroform should not be due occasionally to the same phenomenon.

The two other cases I have to report have come under my own observation. One of them was an instance of secondary asphyxia, from spasm of the glottis, after immersion in the Serpentine during the skating season. The patient, a middle-aged man, had been entirely under water, but on being taken out, respiration returned, and continued comparatively free until placed in a warm bath, when he suddenly exhibited alarming signs of asphyxia, obviously from spasmodic closure of the glottis. A few minutes later the patient was removed to a bed, when several similar attacks occurred, one of them still more severe than the first. He recovered in the course of some hours.

This is an instance of spasm of the glottis produced by an accumulation of carbonic acid in the circulation. The gas in question possesses anæsthetic properties, and is so far allied to chloroform.

The third case is one of equal interest, although the subject of the observation was a dog. About two years ago, when engaged in injecting an aqueous solution of sulphuretted hydrogen into the external jugular vein of a dog, I observed that the animal's respiration, instead of becoming somewhat deeper, as usually happens during this operation, began to fail, and shortly afterwards ceased, without there being the slightest struggle or apparent symptom of asphyxia from the closure of the glottis. I immediately prepared to have recourse to artificial respiration by means of an instrument I have invented for that purpose. In order to insert a tube into the trachea, I incised this organ, when immediately, to my surprise, the animal commenced breathing through the opening. After a few minutes free respiration and sensibility returned, and the animal recovered perfectly. It is obvious that, in the present instance, the respiration had been arrested by closure of the glottis, and the animal was dying from asphyxia; had not tracheotomy been performed, the dog would certainly have died with every symptom of syncope. This case, which I report from memory, was witnessed by many of the pupils of the Westminster Hospital. It shows two interesting facts:

1st. That the presence of an excessive quantity of sulphuretted hydrogen in the blood may cause death from spasm of the glottis; and, 2nd. That on those occasions death takes place without the struggles or convulsions so peculiar to impeded respiration. Consequently, in cases of death from chloroform, the absence of convulsions is no proof that there exists no mechanical obstacle to the free admission of air into the lungs.

The symptoms of death by chloroform are consistent with those of asphyxia. Dr. Snow's book contains a very interesting case of death from chloroform, with symptoms of asphyxia, which was communicated by Dr. Solly to the *Medical Gazette*. This case (No. 12) bears directly on the subject of the present communication. The patient, a porter, aged 48, and apparently in perfect general health, was submitted to chloroform for the removal of a toe-nail. The anæsthetic vapors were administered by means of an inhaler; after the operation had been performed, and being still insensible, the patient's face became dark, his pulse small, quick, but regular, respiration laborious; his neckerchief was removed and chest exposed to fresh air from a window near to the bed, cold water was dashed on his face, the chest rubbed, and ammonia applied to the nose. After struggling for about a minute, he became still, the skin cold, pulse scarcely perceptible, and soon ceased to be felt at the wrist. Immediately on the appearance of these symptoms artificial respiration was commenced by depressing the ribs with the hands and allowing them to rise again, until the proper apparatus was brought, when respiration was kept up by means of the trachea-tube and bellows, and oxygen gas introduced into the lungs by the same means. Galvanism was also applied, but to no purpose.

Dr. Snow considers there is some obscurity about the above narrative, which I have given as nearly as possible in the same words as those used in the report; in his opinion the symptoms exhibited would be inconsistent with death from chloroform. It appears to me, however, that this is clearly a case of asphyxia from spasm of the glottis under the influence of chloroform, and I cannot help believing that had treacheotomy been performed at the time when artificial respiration was commenced, the patient would have been saved. If most cases of death from chloroform are not attended with evident signs of asphyxia, still this is no argument in favor of the absence of spasm of the glottis, for it must be remembered that poisoning by chloroform is a complex phenomenon which results from excessive anæsthesia producing a tendency to paralysis of the muscles, and an action on the heart predisposing to death by cardiac syncope; any spasmodic closure of the glottis occurring under these circumstances would, it may be anticipated, cause sudden death without the recurrence of convulsions, or struggles for breath.

The post-mortem appearances in cases of death from chloroform do not preclude the idea of death from asphyxia; indeed in cardiac syncope, which is according to Dr. Snow the fatal termination of poisoning by chloroform.—"If the blood have not been displaced by artificial respiration or other causes, the right cavities of the heart and the adjoining great veins will be found filled with blood and the lungs will in many cases be more or less congested. The appearances, in short, will be very much the same as in asphyxia by privation of air which ends in a kind of cardiac syncope." Nothing can be more in favor of the view I am advocating. It must be well understood that I do not consider every case of fatal poisoning by chloroform as owing to spasm of the glottis, and there is every reason to believe that in some instances death takes place from paralysis of the muscles of respiration, in others from cardiac syncope, or from a simultaneous occurrence of both these effects.

If it be admitted that death from chloroform be occasionally owing to spasm of the glottis, then the importance of performing tracheotomy in these cases, and adopting some means of allowing air to enter freely through the wound, will be readily understood. It must be remembered that the cases on record of recovery from suspended animation owing to an overdose of chloroform are very few, and, as a rule, it may be considered that, after the respiration has ceased, and the pulse become hardly perceptible at the wrist, death is inevitable. Under these circumstances, any means apparently available should be adopted. The operation of tracheotomy ought to be performed as soon as possible after the respiration has stopped, and the patient assumed that livid countenance known in these cases to precede death: the loss of every second diminishes the chance of saving life. Artificial respiration, if possible, must however not be neglected, and should be carried on before, during, and, if necessary, after the operation of tracheotomy has been performed. Artificial respiration is of great importance in connexion with death from chloroform, and I am at present busily engaged inquiring into this subject.—*Medical Times and Gazette.*

THE MANŒUVRES OF THE SANITARY DEPARTMENT OF THE SWISS ARMY.

As far as I am aware, the organization of the Sanitary Department of the Swiss army is totally unknown abroad, and as it possesses many interesting and instructive peculiarities, I will to-day send you a short account of it; and, I believe, the best way to do this will be to report to you the doings of one of the last "sanitary courses," which are held every six months, and which I have personally witnessed.

A number of Medical men, sick attendants and commissaries of ambulances were assembled in Zurich. The Staff-Surgeon first gave them instruction in the organization of foreign armies as well as of the Swiss forces, and the execution of the sanitary measures necessary for the efficiency of the service, the ambulances and Hospitals, the general administration, the keeping of accounts, &c. They were then shown the whole material necessary for the sanitary arrangements, and had to practise its application, unpacking and re-packing. Especial attention was called to the transport of the sick and wounded by rail and other means of locomotion, regard being had to the experience gained in the last wars. Manœuvres were then made under the command of the chief Staff-Surgeon of the Swiss army. A sham fight by the artillery and the infantry took place for the forcing the passage of a river, and thirty soldiers were left wounded along the banks, ticketed with cards stating the kind and locality of the wounds. This was done in order to test the efficiency of those attendants whose special duty is the search for, and the transport of, the wounded.

At a certain distance from the line of battle, on both wings of the force, the surgeons set up in order to dress the wounded; all necessaries, straw, water, &c., being provided in abundance. A certain number of attendants and their helpers then advanced to the field of battle, searched for the wounded, made a rough preliminary dressing, and then transported them on suitable carriages to the Surgeons' tents where the real dressing was done, as simply as possible. Dressings with triangular towels were used for the wounds of the upper extremities, of the head and the feet, and for a large proportion of the wounds of the thigh. For fractures, different forms of single and double splints were employed, and the several methods of applying the gypsum bandage were practised—gypsum being always at hand in the Swiss ambulances. Capsules which are moulded for enclosing the whole extremity, and are only open at the top, will also be shortly introduced. This is of great importance, as they are superior to any other contrivance for the transport of the wounded. For limiting the use of the tourniquet as much as possible, the attendants and their helpers are practised in digital compression of the principal arteries, the experience of the Russian and English armies during the war in the Crimea having fully shown that this is far preferable to the use of the tourniquet. In the Italian campaign of 1859, therefore, scarcely any tourniquets were used; and even when amputations were made, digital compression was exclusively employed.

At a suitable place an ambulance was put up, and with the greatest rapidity a tent, which afforded room for about twenty wounded persons, was struck, and a transport waggon mounted. The attendants then unpacked the material, prepared beds in the tent, and a field-kitchen, according to the French system, in its neighborhood; in from fifteen to twenty minutes the flag waved from the tent as a signal that all was ready for the reception of the wounded. The chief of the ambulance assigned their proper places to every Surgeon and attendant, &c. A waggon, drawn by a horse, was sent to fetch the wounded from the Surgeon's tents on the wings of the force; such wounded persons as were still able to walk, followed the waggon on foot. They were then taken to the operating tables; the wounds were closely examined, the necessary operations made, and durable dressings put on; everything being done "*tuto, cito et jucunde.*" The commissary of the ambulance meanwhile distributed the material and made the necessary entries, while the waggon continually brought fresh supplies of wounded.

In the meantime another party had formed a suitable lazaret in a house and shed in a neighboring village, to which, in order to prevent a crowding of the ambulances, the wounded were from time to time transported, and there properly cared for. These proceedings were continued until all the wounded had been brought in, after which, the ambulances were cleaned and repacked, and the tent raised.

By these exercises the sanitary field service was practised in its whole extent, and the connexion and the mutual action of all its parts clearly shown. In order to afford a better view of the whole and to avoid loss of time, the several stations for rendering aid were situated much nearer to each other than would be the case in real warfare.

I must not omit mentioning that we have no special sanitary troops, as is the case in some foreign armies, since the number of combatants would be thereby too much diminished; but the sick-attendants form the nucleus of the sanitary troops, and if these do not prove sufficient, assistants are taken from the ranks. The attendants therefore are both soldiers and nurses, and these exercises, by making them acquainted with all improvements introduced in the sanitary arrangements, render them more efficient than elsewhere. I have seen the sanitary service of the French armies during the whole of the Italian campaign of 1859; and in comparing with it the Swiss, I cannot speak too highly of the zeal and efficiency of the latter.

Two such sanitary courses as just described are held every year,—one for our Eastern, the other for the Western forces, and in each two or three sham dressings and nursings of wounded take place, and always under varied circumstances. By their means the commissaries' attendants and their assistants are made practically acquainted with the details of the service and their respective duties, and such young medical men who have only seen civil practice have the opportunity of learning the difference between this and military surgery. The circumstance that every medical man in Switzerland is, at the same time, civil and military physician, has perhaps some drawbacks, but I think the preceding lines have shown that it is also not devoid of advantages.—*Correspondence of Med. Times and Gazette.*

Bibliographical Notices.

Quinine as a Prophylactic or Protective from Miasmatic Poisoning, a Preventive of Paroxysms of Miasmatic Diseases, together with some Remarks upon its use in the treatment of developed Miasmatic Diseases. By Stephen Rogers, M.D., U. S. A., formerly Assistant Physician to the Island Hospital, New York, and Surgeon to Panama Railroad Company; Licentiate of the Royal University of Havana, Cuba, &c., Surgeon of the 7th Regt. N. Y. 8vo. pp. 24.

The present season, and the present position of our armies, give special interest to anything on the subject of malaria, and the means of checking its poisonous influence upon our troops. Quinine has been administered blindly in the most wholesale manner, and very certainly, in many instances, with decidedly pernicious effect. Unquestionably it is an agent capable of doing immense good if administered understandingly, but equally capable of mischief if given hap-hazard and ignorantly. Many of the medical men in the army are having their first experience in its use as an antidote to malaria, and really do not understand how and when to give it, except when positive symptoms of infection manifest themselves. Its use affords a grand opportunity for those gentlemen who wish to rise above mere routine practice, to study the precise nature of its power under different modes of administration, and to lay down definite rules when and how it should be given with the most likelihood of success as a preventive of malarious disease.

The little pamphlet of Dr. Rogers is a valuable contribution to our knowledge on this subject. Speaking, as he does, from personal experience, we are prepared to accept his statements with special respect. He states that for four years he was constantly inhaling the noxious atmosphere of the miasmatic localities of the isthmus of Panama, and did not suffer a single attack of malarious disease; an immunity which he attributes entirely to the use of quinine. The author gives to the fever which, under the name of remittent, bilious remittent, acclimating fever, &c., attacks the unacclimated in the tropical regions of the world or the miasmatic localities of our own country, the name of "First Miasmatic Fever." He says of it that

> "The law relating to this fever is similar to, or identical with that observed by yellow fever, in localities where it is an annual endemic, viz., the longer one resides, under any circumstances, in the locality where it is suffered, the less liable he becomes to its attacks
>
> "A species of toleration of the surrounding influences is acquired, lessening the impression of the poison upon the sensorium; so that after more or less time, aided perhaps by a depression of the powers of life and consequent want of vital force to sustain a violent contest, the intense and destructive character of the fever ceases to occur, except in the rare cases just alluded to."

The time necessary to secure this acclimating process, without passing through the ordeal of the disease, the author says, without hesitation, is secured by the proper employment of quinine. Such acclimation may occur without its use in certain cases; he feels confident it will in all, if this drug is taken in the right way. In all cases, the longer the attack is postponed the milder it invariably is, but quinine may prevent it altogether. The dose to be given to secure this result is an important question, and the author's experiments have led him to the conclusion that "doses too small to produce a sensible and decided impression upon the nervous system, are not to be depended upon." The rule he adopted, therefore, was to give it daily to exposed persons, in a dose sufficient to cause an evident impression, to be repeated when the impression begins to subside. Four grains administered once in twelve hours, were usually enough, and in some cases three answered the purpose, while others required still more. The dose was regulated by the effect.

But the question arises how long must the drug be taken to secure a permanent protection. Few persons are willing to be dosing forever while living in a malarious district—when shall the medicine be stopped? Ordinarily our author would limit its use to thirty days, on the principle which he has laid down, that after a somewhat prolonged residence in such a locality, malarious disease, if it come at all, is sure to be of a mild type. The author sums up his experience, therefore, in the following rule:—

"The rule then for all cases is, when men are about to be exposed to miasm, give them from three to five grains—according to known effect—before exposure, and repeat the dose once in *twelve* hours, during the whole period of exposure, up to about thirty days in the *permanent* resident; extending it even to sixty days in the *transient* resident, where there are peculiar reasons for desiring to avoid subsequent miasmatic disease; not forgetting that cases often occur, wherein it will be necessary to repeat the dose once in *eight* hours to keep up the required *quinine effect*, which is our only certain guide, and is to be carefully watched and maintained in all cases.

"Another rule is, no quinine is required after exposure ceases."

In the subsequent chapters of his interesting paper, the author considers the subjects of the prevention of the disease in those who have become infected by the malarious poison, and the cure of the fully declared disease. He concludes with the following summary of deductions:—

"First—When men are to be sent into miasmatic localities, either from ships or from land forces, a dose of quinine sufficiently large to produce some appreciable evidence of its action, should be taken by every one before entering such locality, and should be repeated once in twelve, and in some cases once in eight hours (which it will be the physician's duty to ascertain and prepare for), during the time spent there.

"Second—That the removal from a miasmatic atmosphere for any twelve hours, and especially during a night, is quite equivalent as a protective, to one dose of quinine; it may be much more economical, and, when practicable, is by far the most desirable protective measure.

"Third—That in all cases where this measure can be daily practised, it will unquestionably preserve the susceptibilities of the brain to the action of the medicine, for an indefinite and probably long period, and will thus serve indirectly as a most efficient protective.

"Fourth—That officers and chiefs in command, should by all means avail themselves of the advantages to be derived from such intermissions in exposure, and thereby maintain their susceptibility to the quinine more or less unimpaired. By so doing, the loss of their important services would be rendered much less liable, and the consequent embarrassment to operations would almost surely be avoided.

"Fifth—That when continuous exposure is inevitable, there is no safety in attempting to protect from infection by the use of quinine, for a longer time than two months, and as a general rule, it is not advisable for longer than one month.

"Sixth—That ceasing its administration at this period, by the time the infection takes place, and the premonitions appear, the susceptibilities to the medicine will have become so restored that it will be practicable generally to prevent the paroxysms for long periods of time.

"Seventh—That as quinine is a stimulant, with specific action in all conditions of depression or exhaustion from miasmatic poison and miasmatic disease, it is indicated in all cases, irrespective of the state of the skin, when the unaided powers of life are likely to be unable to restore to healthy action within the time required to avoid a renewed attack, and also when there may be danger that the vital forces will be overwhelmed by the poison in the onset of the disease, and that when so indicated, it should be promptly and efficiently employed, either by the stomach or rectum, as the case may demand.

"Eighth—That by an observance of these rules, and by avoiding the causes of other diseases, most men of even ordinary constitutions can be kept in miasmatic localities for years, in an efficient state of health."

This little pamphlet is well-timed and instructive: we hope the author's views may be sustained by the experience of those whose duty calls them now to the poisonous districts of our Central and Southern States.

Hints and Observations on Military Hygiene: with the best means of treating the Medical and Surgical Diseases of the Army. By LAURENCE TURNBULL, M.D., one of the Surgeons of the Howard Hospital. Reprinted from the *Medical and Surgical Reporter*. Philadelphia, 1862. Pamph., large 8vo., pp. 62.

This is a condensed, practical treatise on the principal topics indicated in its title, which are likely to engage the attention of the military surgeon of the present day. The author has brought together the results of the experience of the best European and American authorities, and the flexible covered pamphlet which is the product is a very convenient, and likely to be a very useful companion to our Surgeons in the field. It is eminently practical.

Amputation of the Cervix Uteri.—A paper read before the New York Academy of Medicine, April 16th, 1862. By A. K. GARDNER, M.D. Reprinted from the Bulletin of the New York Academy of Medicine. 8vo., pamph., pp. 16.

This is the history of a case of extraordinary hypertrophy of the neck of the uterus, causing great prolapsus, so that the os protruded an inch or more beyond the vulva. The enlarged portion was removed by Dr. Gardner with scissors, the operation being gradually performed, the hæmorrhage being arrested by twisting or compression as each vessel was severed. The portion removed weighed four ounces and one hundred and sixty grains. The patient recovered. The dangers to be encountered, and avoided, if possible, in doing this heroic operation, are fully discussed by the author, and the whole history is a very interesting one. The pamphlet concludes with an interesting account of the previous puerperal history of the patient by Dr. Shelton, of Jamaica, L. I., which is, however, not altogether written in the best taste.

The Domain of Medical Police. Abstract of a paper read before the New York Sanitary Association, Feb. 6th, 1862. By LOUIS ELSBERG, A.M., M.D.

This is an outline or sketch of the general subject of the public health, and those particular influences, public and private, which are more or less operative against it in every community: with some suggestions for their removal, and some discussion of the question how far the authority of the law may interfere in certain cases.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, AUGUST 21, 1862.

Surgeons for the New Levy.—The sudden call to arms of six hundred thousand men brings with it a demand for the services of the medical profession, which it needs all the stimulus of patriotism to meet. Six hundred thousand men will, under the present laws, require eighteen hundred medical men to fill the offices of regimental and assistant surgeons. The fact is somewhat startling to contemplate, and it is important that our brethren should be preparing their minds for the responsibility which it implies. In this State alone over a hundred surgeons will be required to fill the offices in the new regiments. We may well ask, where are so many fit men to be found? As a general rule, thus far Massachusetts has done well in its appointments on the medical staff. A careful preliminary examination has had the effect of sifting out very thoroughly the chaff from the wheat, and the urgent need of the time has called into the field some of the best men of the profession. We sincerely hope that the same care will be exercised now, and that the exigency of the moment will not lead to the appointment of men unworthy of the place. Above all, there should be no favoritism: no commissions given on personal grounds alone. Such appointments are more than likely to fall upon those who could get them in no other way, and who are therefore the last persons who should have them. Of course it must be a matter of extreme difficulty to find so many men as are wanted who are practically familiar with the most important operations of surgery. This is a serious evil, as novices are only too ready to signalize themselves by daring operations. An extract which we printed last week fully confirms this statement. Operative surgery in reality, as the experience of the past year has proved, constitutes the smallest part of the duty of an army surgeon; his chief duty is to treat disease, and dress rather than make wounds. Such being the fact, there are hundreds of men in Massachusetts competent at this moment to assume the responsibilities which belong to the office. There will always be some among those who obtain appointments, whose special tastes and previous experience fit them particularly for the graver operations likely to be necessary. This fact must come out in the course of their examination, or through the personal knowledge of the State medical commission, and upon such men the duty should be put. The mind shudders at the thought of an amputation taking *an hour and a half* in its accomplishment, commenced by the flap operation and ending by circular incision, such as we are credibly informed has, at least in one instance, within a year, been done by the bungling hands of a novice, whose official position should have been no warrant for such an outrage. As the post of brigade-surgeon has been recently abolished, we know of no way, unless it be through the medical director of a division, by which the responsibility of doing capital operations may be assigned by any medical officer above the rank of regimental surgeon to the men especially fit. If such authority does exist, we sincerely hope it may be exercised without any undue delicacy. We trust that the spirit which leads so many of our brethren to give up their practice at home, to incur the dangers and the labors of military life, will lead them to abstain from making their position an excuse for undertaking what they ought not to perform, if more competent men are at hand.

With regard to assistant surgeons, we see no reason why, in the present emergency, medical students in the last year of their course may not receive the appointment. The position is subordinate, and does not call for any professional knowledge which is not at the command of many we could name, whose youth and physical vigor also admirably qualify them for the arduous labor which its duties impose.

MENORRHAGIA—*Successful Treatment by means of the Perchlorure de Fer.*—M. Torresini had under his care a young girl who had suffered for two months from a continual menorrhagia, which was steadily increasing, had greatly enfeebled her and produced the chlorotic hue. Having tried in vain ergotine, savin, tannin, the tannate and sulphate of iron, he administered forty and the next day eighty drops of the *perchlorure de fer* in the course of twenty-four hours. From the first doses the flowing sensibly diminished, and continued to do so until it ceased altogether. At the end of a week the patient had recovered much of the strength and color of health.

A robust working-woman applied to M. Torresini on account of a very copious puerperal flow. Forty drops of the perchlorure given in four doses were sufficient to stop it. Two days after, the patient having made an imprudent effort, the hæmorrhage recommenced. The same remedy, in the same dose, stopped it, and she resumed her occupations. A chloro-anæmia following it disappeared under the prolonged use of sulphate of iron. To these cases reported by M. Torresini, M. Dieudonné adds four other similar cases occurring in his own practice. In two cases this medicine was given at first; in the others, M Dieudonné had recourse to rhatany, ergotine, alum and tannin without success. The dose was from four to six grammes of the solution of perchlorure de fer in about one hundred and fifty grammes of distilled water, taken in the course of twenty-four hours. The best way of disguising the taste of the dose, is to add to it a sufficient quantity of peppermint water.—*Journal de Médecine de Bordeaux* from *Gaz. Med. Ital. et Jour. de Med. de Bruxelles.*

CONSIDERATIONS IN REFERENCE TO HEALTHY, IN CONTRA-DISTINCTION TO DISEASED JOINTS. (From a paper by JOHN SWINBURNE, M.D., Albany, N. Y.) In the Philadelphia *Medical and Surgical Reporter*, vol. vii., p. 40, will be found an article, quoted from the San Francisco *Medical Press*, for July, in which Dr. E. S. Cooper lays down what he calls new surgical principles, and enumerates them, from 1 to 7. In the main, I think the doctor correct, but while all this may be true of a diseased joint, I would make the pertinent inquiry:

1st. Were you, as surgeon, to find a healthy knee-joint, opened for two, three or four inches in length, with a clean cutting instrument, would you allow it to heal by granulation? or would you rather close it by metallic sutures, as carefully as possible, with the object of obtaining union by the first intention?

2d. Were you to treat a punctured wound of the same joint, would you close it, allow it to suppurate, or would you rather convert it into a full and free incision?

3d. In the operation for the removal of false cartilages from the joint, should your incision be large and free, and allow the same to heal by granulation? or should you strive to remove the cartilage by subcutaneous incision, and so heal the wound by the first intention?

There are some important considerations in reference to healthy, in contra-distinction to diseased joints, which require further consideration, and I candidly confess (with my limited experience) that I am unable to give a solution of them. I would, therefore, invite the profession to investigate, carefully, this important and intricate matter.—*Philad. Med. and Surg. Reporter.*

To which the Editor of the San Francisco *Medical Press* replies as follows:

[*To 1st Inquiry*—We would answer, that the parts should be brought together, with the view of effecting healing by first intention; but, at the same time, if the least purulent matter should be found in the joint afterwards, we would re-open it at once, and then make the wound heal by granulation.

To 2d Inquiry—We would not convert the small punctured wound into a free incised one, immediately upon being called to such a case, if of recent occurrence, but would do so at once afterwards, if we discovered that there existed a single drop of purulent matter in the joint.

To 3d Inquiry—In removing foreign bodies from the knee-joint, we always make an incision sufficiently free to remove the substance readily, and then, generally, favor healing of the wound by first intention, by bringing the parts together, but never resort to the subcutaneous section. We have, however, operated, several times, by direct incision, and afterwards applying lint in the wound caused it to heal by granulation, and, in every case, with favorable results: but were led to quit the plan, in consequence of concluding that it kept the wounds somewhat longer in healing.

The rule we have fixed upon, after modifying our practice somewhat from that pursued when first we departed from the beaten track by disregarding the admission of atmosphere, is to favor the healing of fresh wounds of healthy joints by the adhesive process, but wounds of suppurating joints we make to heal by granulation.

Remarks.—In the treatment of all the wounds about the knee-joint, whether accidental or made by the knife, we apply a roller around the limb as tightly as the patient can conveniently bear, commencing at the toes and continuing half way up the thigh. The pressure of the roller has great influence in interrupting the mischievous process of suppuration and disorganization, which is the bane of these cases. A single drop of purulent matter is first generated from some portion of the injured synovial membrane, which, being of a soft and vascular structure, is disposed to suppurate under the influence of a slight inflammation: and this disposition to suppuration in a synovial membrane, together with the extent of development of this structure, in and around the joint, accounts for the rapidity with which purulent matter accumulates, in many cases, after the slightest wounds, such as those made by the puncture of a penknife. The pressure of the roller interrupts, to a considerable extent, the flow of blood to this as well as all other soft structures entering into the formation of the joint.

Around the joint are numerous bursæ mucosæ, in which the disorganizing process often begins, though it may subsequently involve the entire knee joint. This is, by far, more frequently the case than any one not much accustomed to making incisions into suppurating cavities about the knee would form any idea of. We have repeatedly made incisions into what we supposed, prior to the operation, to be suppurating joint cavities, but found the purulent collection altogether external to the capsular ligament. In these cases, the same excruciating pain and rapid accumulation of pus took place as occurs when the joint itself is previously involved. The application of a roller, immediately upon the reception of an injury involving the extra capsular tissues alone, would, in many instances, prevent the formation of purulent matter at all; but, when once it commences, nothing but opening the parts, freely, offers any prospect of an early cure. —*San Francisco Medical Press.*

The following is an extract from a report to the Sanitary Commission, by its actuary, Mr. E. B. Elliott, which is now in press:—

"Since one hundred and four (104.4) out of every thousand men (officers and privates together) in the entire army is the constant proportion of sick, it follows that, to secure in the field a constant force of five hundred thousand (500,000) *effective* (or healthy and able) men, the nation must constantly maintain in hospitals, or elsewhere, an additional force of fifty eight thousand (58,000) sick men, making the entire force maintained, both sick and effective, to consist of five hundred and fifty-eight thousand (558,000) men: four per cent., or 22,000 of this entire force, would be commissioned officers, and ninety-six per cent., or 536,000, enlisted men. And since to supply continuous losses in the ranks of the enlisted men, other than losses from expiration of service, requires recruits at the annual rate of 229 per 1000 enlisted men, it follows, that to keep the ranks of these 536,000 enlisted men constantly full, will require annually 123,000 recruits, 29,000 of these recruits being demanded to supply the annual loss occasioned by death: 54,000, the loss arising from discharges from service, mainly from disability: 27,000 for excess of desertions over returns of deserters to duty: 7000 missing in action, not subsequently otherwise accounted for, and 6000 the loss from other causes.

"To repeat—assuming the returns of the period from the 1st of June, 1861, to the 1st of March, 1862, as the basis of calculation, it follows, that to secure in the field a constant force of 500,000 effective men, the nation must not only maintain 58,000 sick men, but it must also recruit the ranks of the enlisted portion of these forces with new material, at the rate of 123,000 per annum, so long as the war shall last: a rate somewhat exceeding 10,000 recruits per month. Of these 123,000 annual recruits, 83,000 are to supply losses by death and discharges from service (exclusive of discharges for expiration of its term): 34,000 for desertions and missing in action (not returned or otherwise accounted for): and 6000 to supply other losses specified and unspecified.

"The five hundred thousand (500,000) effective men are equivalent in number to the number of men in 572 regiments of the average numerical strength (that is, 872 men each): and the 58,000 sick equivalent to 67 regiments of average numerical strength; the entire force of 558,000 men to be maintained being equivalent to 640 regiments of average strength."

HEALTH OF PROVIDENCE.—The health of Providence in July, as indicated by the mortality returns, was so remarkable as to deserve a brief notice. The number of deaths (61) was one less than in June: 31 less than in July of last year, and 25 less than the average for July during the last six years. The number was also less than in any year, except one, since 1842, when the population was less than half the present number. The fact that there were less deaths in July than in June is unprecedented in the 22 years of registration in this city.

The proportion of deaths under 5 years of age was unusually small. Of the 30 decedents of American parentage, only 9 were under 5 yrs., and the average age of the whole 30, was 31 years. Of the 31 decedents of foreign parentage, 17 were under 5 years, and the average age of the whole number was 22 years.

It is probable that the low temperature of July was one cause of the small number of deaths among children. Since the beginning of the present month, there has been a considerable increase of mortality. —*City Registrar's Monthly Report.*

THE oil wells at Enniskillen, C. W., are yielding more abundantly than was at first described. There are about 200 wells at that place, which average 5,000 barrels a day. Out of one well 40 gallons were pumped in two minutes. Another well yields a barrel in 30 seconds, or nearly 3,000 barrels a day. Enniskillen is 20 feet above the level of Lake Huron, and 600 feet above the level of the sea. The rock is a little over 40 feet below the surface of the earth, and the wells vary in depth from 100 to 230 feet, or from 50 to 180 feet below the rock. Vessels and transportation fail to meet the increasing supply of oil, and much of it is wasted. Eighteen months ago the oil district was a wilderness; it now contains 600 inhabitants, and the number is increasing. The price at the wells is $1 per barrel, and the empty barrels sell at $2 each.—*Gas Light Journal.*

LONDON SURGEONS.—In a letter to the *Amer. Med. Times,* Professor Charles A. Lee, says: "The London surgeons operate more fearlessly, and with more rapidity than ours do on our side of the Atlantic; but I very much doubt whether more successfully, except in particular cases. Thus I saw Mr. Ferguson operate for double cleft palate last week, and the operation was completed in fifteen minutes. He afterwards informed me that the average duration of the operation of staphyloraphy in his hands was ten minutes, and that out of one hundred and five cases, he had met with complete success in one hundred and two. This must be admitted to be extraordinary activity and marvellous success. But much of this success is owing to previous frequent manipulations by the finger of the patient, or a tooth brush, of the fauces and parts adjacent, and to the very free separation of the velum palati from the bone, so as to allow great distension. The profession is indebted to Mr. F. for this practice, which he introduced many years ago, but has recently been claimed by another surgeon as having originated with him."

Mr. Editor,—In my communication in the last week's Journal, *Accidental Resection of the Elbow-joint*, I notice the omission of part of a sentence in the second paragraph which I wish to correct, as it makes the injury appear very much worse than it really was. After the word muscle, in the fourth line, it should read thus:—"and perhaps small portions of the brachialis anticus, supinator radii longus and the extensor carpi radialis longus: the brachial artery, the median and brachial nerves, the accompanying cellular and adipose tissues," &c. The above-named artery and nerves were not materially injured, and it was from this fact that the effort was made to preserve the limb.

Yours truly, Edward Barton.

Orange, Aug. 18, 1862.

The Berkshire Medical Society.—Agreeably to the invitation, mentioned in our issue of the 17th ult., to the members of this Society to meet at the house of its late President, Dr. Clarkson T. Collins, in Great Barrington, a large number assembled there on the 30th, and after the transaction of business in the morning, repaired to his institution in the afternoon to dine. About seventy individuals—including, besides members of the Society, ladies, doctors, clergymen, lawyers, and unprofessional gentlemen—sat down to the tables, which are reported to have been richly decorated and abundantly supplied with delicious viands, rich condiments and sparkling beverages. After the repast, and a cordial welcome expressed by the host, speeches were made by many distinguished gentlemen,—including ex-Gov. Childs of the Berkshire Medical Institution, several clergymen of the vicinity, Hon. Increase Sumner, Hon. S. S. Hamlin of Cincinnati, Joseph Tucker, Esq., Hon. S. B. Sumner (who delivered an appropriate and humorous poem), William Sherwood the author and poet, Hon. Thomas Plunkett, Col. Twining and others. The festival was closed by an evening reception of between one and two hundred ladies and gentlemen, who remained till a late hour. Everything is represented to have passed off with great animation and success, and the meeting was equal to any of the similar ones which have been held under the same hospitable roof.

Absent Surgeons Called to Duty.—The Government is desirous that all surgeons, now absent on furloughs, should immediately report to their regiments, and that all vacancies left by regimental surgeons should be immediately filled by the Governors of the several States.

We are glad to record an act of unobtrusive kindness which in a small way has been the means of adding materially to the comfort of the patients in the Mass. General Hospital. Mr. O. H. P. Burnham, No. 143 Washington street, has, through the instrumentality of a benevolent lady who is a constant visiter at the Hospital, for several years supplied the inmates of that Institution gratuitously with such light reading as the somewhat limited library of the Institution does not afford. This generosity is fully appreciated, and is a great resource to the patients.

Dr. Charles Alexander of Farmington, is Surgeon, and Dr. Augustus B. Farnham of Bangor, Assistant Surgeon, of the 16th Maine Regiment, which has just left home for the seat of war.

The late Surgeon-General, Clement A. Finlay, of Ohio, has been retired from service at his own request. He has been in the service forty years.

George V. Winslow, of Massachusetts, and James Kinnier, of New York, have been appointed naval Acting Assistant Surgeons, and ordered to report to Captain Wilkes.

Dr. Orrin Warren, of West Newbury, is Surgeon; and Drs. Wm. S. Brown, of Boston, and Daniel P. Gage, of Lowell, Assistant Surgeons, of the 33d Regt. Massachusetts Volunteers, which left Boston last week for the seat of war.

At a meeting of the Trustees of the Jefferson Medical College, on the 22d July, Dr. Ellerslie Wallace was elected Professor of Obsteries and Diseases of Women and Children.

The London *Lancet* states that a meeting of the Council of the College of Physicians, Edinburgh, was held on the 20th of June, to decide the question of the admission of ladies to the medical profession. On a division, sixteen members voted for the proposal, and eighteen against it.

The attention of our readers is called to the advertisement, in to-day's issue, by an old subscriber, of a complete set of this JOURNAL. The older volumes of the work are now becoming so scarce, that an opportunity seldom occurs of securing a full set; and any individual or association desirous of possessing one, would do well to obtain that now offered.

The recent delays in the issue of the Journal, have been in part caused by interruptions in the office consequent upon calls for military duty. We hope soon to make arrangements for its prompt appearance again, and trust our readers will bear with us in this and various other short-comings during these exciting times.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, AUGUST 16TH, 1862.

DEATHS.

	Males.	*Females*	*Total.*
Deaths during the week, ...	64	48	112
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	55.3	48.9	104 02
Average corrected to increased population, ...	..	..	118.92
Deaths of persons above 90, ...	..	1	1

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
8	30	2	8	3	0	6	2	1

DIED,—At Saco, Me., on the 7th inst., Dr. Henry B. C. Greene, eldest son of the late Dr. H. B. C. Greene, of Boston.

DEATHS IN BOSTON for the week ending Saturday noon, August 16th, 112. Males, 64—Females, 48.—Accidents, 3—congestion of the brain, 1—disease of the brain, 1—inflammation of the bowels, 2—cholera infantum, 30—cholera morbus, 2—consumption, 8—convulsions, 2—croup, 2—diarrhœa, 2—diphtheria, 1—dropsy, 1—dropsy of the brain, 5—drowned, 1—dysentery, 6—epilepsy, 1—bilious fever, 1—scarlet fever, 8—typhoid fever, 2—gastritis, 1—hæmoptysis, 1—disease of the heart, 2—infantile disease, 1—insanity, 2—intemperance, 2—jaundice, 1—disease of the kidneys, 1—disease of the liver, 2—inflammation of the lungs, 3—marasmus, 5—measles, 1—old age, 2—paralysis, 1—[illegible], 1—sunstroke, 1—unknown, 6.

Under 5 years of age, 68—between 5 and 20 years, 4—between 20 and 40 years, 20—between 40 and 60 years, 8—above 60 years, 12. Born in the United States, 91—Ireland, 17—other places, 4.

THE

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SURGICAL TREATMENT OF GLAUCOMA.

By J. H. Dix, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

Before saying any thing more on this subject, I wish to make to the Editors of this Journal and to its readers an explanation, and to certain gentlemen in New York an apology, for a misstatement in a previous article.

To substantiate the remark which I thought it my duty to make as to the culpable silence or misrepresentation of the American medical press, I carefully looked over for a year previous the tables of contents of Journals published in this country, which I was in the habit of seeing and which were accessible, on the presumption that it was unnecessary to look further back for mention in other parts of the country of a matter which in this neighborhood certainly had been utterly neglected. A search of two months earlier, of the *Medical Times*, would have shown me that Drs. Dubois, Agnew, Hinton, Noyes and Bumstead, of New York city, had for two years past been familiar with the surgical treatment of glaucoma, and, as I infer from Dr. Bumstead's statement, satisfied of its utility. I am obliged to Dr. Bumstead for his correction, freely acknowledging that New York, in this important step in ophthalmic surgery, was two years in advance of Boston, and as a Bostonian find some consolation in the fact that Dr. Bumstead, who initiated the treatment in New York, was a Boston boy. I shall be happy to meet with reclamations elsewhere, and to except the profession in other places than New York, from a reproach which I believed to be as general as it was just.

In that article, in view of the delay in the adoption of iridectomy or other surgical treatment for glaucoma, I attributed it in part to the silence or misrepresentation of our medical periodical press. But there are probably other and more effective reasons. One of them is, perhaps, the supposed difficulty of diagnosing the disease at a period early enough to secure a fully successful result; and another, the impression, derived from the frequent reference to ophthalmoscopic observation in the details of cases in Europe, that an exploration with the ophthalmoscope is necessary to a decisive diagnosis.

To the description of glaucoma, as given in treatises upon diseases of the eye written some years ago, and still very justly esteemed as standard works, additions of more or less value have been made by modern observers. They are embraced in the following description by Hulke, in quoting from whom I have taken the liberty to change somewhat the succession of the symptoms, so as to put first those which in my opinion are most significant or most available, and Italicising those which are essential to the diagnosis at an early period.

"*Premonitory Symptoms.*—Rapidly increasing presbyopia; the appearance of a colored halo round the flame of a candle; the spontaneous appearance of flashes and other spectra. Intercurrent obstruction of vision, attended with vague orbital and frontal pains, *slight hardness of the eyeball*, and contraction of the field of vision. The *pupil is large and sluggish; the size of the anterior chamber is much diminished.* The duration and intensity of these symptoms are very variable, but they are rarely absent.

"*Acute Glaucoma.*—The active stage sets in as a sudden and violent outbreak, often at night. Violent racking pain in the eyeball, often attended with sickness, and followed by rapid extinction of sight. *The pupil is widely dilatel and motionless;* and the lens has sometimes the peculiar greenish tint which was formerly considered so characteristic. *The globe is very hard;* the ciliary vessels are swollen; the conjunctiva is red and often chemosed, the cornea is dull, and its sensibility is lowered. Remissions are followed by fresh paroxysms, and complete, irremediable blindness always ensues.

"*Chronic Glaucoma.*—The premonitory period slowly glides into the active. The obscurations, which were at first evanescent and separated by long intervals, become more frequent, and last longer. *The tension of the globe increases.* The contraction of the visual field progresses. The iris becomes dull; the aqueous humor turbid; the cornea dimmed and flattened.

"*Ophthalmoscopic Signs.*—*Excavation of the optic nerve entrance*, and pulsation of the retinal vessels. To these, capillary apoplexy of the retina is often added; and sometimes there are small blood-clots in the vitreous humor, which is unnaturally firm. It is only late in the disease, when all the component structures are undergoing atrophy, that the vitreous humor becomes fluid.

"*The Nature and Causes of the Glaucomatous Process.*—All the leading features of the glaucoma are due to excessive tension of the eyeball from a superabundance of fluid within it, which distends the vitreous humor. This fluid—serum—is derived mainly from the choroid."*

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* By J. W. Hulke, Esq., F.R.C.S., Assistant Surgeon to King's College Hospital and to the Royal London Ophthalmic Hospital. Braithwaite, Part 42, p. 205.

Of several of these signs of modern discovery, it may be said that they are possible and occasional concomitants, rather than essential diagnostic symptoms, and that in the early stages especially of glaucoma their entire absence does not invalidate the diagnosis. Such are the swelling of the ciliary vessels, the flattening of the cornea and its lowered sensibility.

The ciliary region, in decided acute or chronic glaucoma, also, is sometimes as free from any visible congestion, and presents a surface as white, as in perfect health.

Instead of flattening of the cornea, which in my experience, except in cases clearly of long duration, is an unfrequent, and by the ordinary means of observation not a readily determined symptom,* most continental writers speak in this connection of a flattening of the anterior chamber of the aqueous humor. This may of course be the consequence, in whole or in part, of a diminished convexity of the cornea, but in cases of glaucoma usually the chamber is flattened, or, more properly speaking, narrowed, chiefly by the increased volume of the vitreous humor, and perhaps other posterior tissues, thrusting forward the lens and its suspensory ligaments so that the posterior chamber is quite obliterated, even without the removal of its anterior boundary by the extreme dilatation of the pupil. This flattening of the chambers, with its consequent approximation of the anterior capsule of the lens towards the posterior surface of the cornea, is one of the earliest and most frequent, and also one of the most significant symptoms. It is also a most important symptom to be borne in mind during the operation of iridectomy. The flattening of the cornea is of itself a symptom of little moment. There may be in fact an increased, instead of a lessened convexity of the cornea, and the advocates of division of the ciliary muscle (intraocular myotomy) claim that this operation was first applied to a case of glaucoma in which the cornea bulged forward, from constriction around its margin by the ciliary muscle.

As to insensibility of a cornea, it is certainly not a very constant symptom of glaucoma, and is sometimes met with in other diseases.

Mr. Hulke has placed the ophthalmoscopic appearances last, and they are not Italicised. In the first place, because, at the early access of the disease, when the operation is most hopeful, these appearances probably do not exist in such a degree as to be cognizable even by an accustomed observer. Secondly, because, from the turbid state of the aqueous humor in the early, and the diplochromatic state of the crystalline lens in the mature stages of glaucoma, such exploration is often impossible. Thirdly and chiefly, because when one or more of the internal textures of the globe are in a state of active inflammation, the stimulus of light from the ophthalmoscope may be injurious. Lastly, because, "in the present state of our knowledge, the lesion of the optic nerve alone is no longer to be considered as defining glaucoma, because in a series of cases it has a pathogenicus quite foreign to glaucoma."*

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* By Helmholtz's Ophthalmometer the convexity of the cornea may be mathematically measured.

With reference to this lesion or excavation of the optic nerve, which, though it may not be conclusively diagnostic of glacoma, is one of the most interesting and important revelations of the ophthalmoscope, the following explanation by Dr. Mackenzie may be useful to gentlemen who are not often called on to make ophthalmoscopic examinations.

"To discern the pulsatory movement of the vessels, requires a sharp and experienced eye, and the observer will find it of service, while directing his attention to this point, to have the patient's head supported, and the diseased eye steadied by the fingers of an assistant.

"If the indirect or inverted method of ophthalmoscopic observation be selected, an optical deception is apt to bewilder a beginner, as to the condition of the entrance of the optic nerve, a nearly circular spot, though not unfrequently oval, variable in size, but measuring on an average 0·6 line in diameter, and which, although styled *papilla* or *colliculus*, is, in its normal state, nearly level with the retina, and even a little depressed in its centre. In the direct method, where the observer regards the illuminated non-inverted fundus oculi through an aperture in a concave mirror without the aid of any extraneous lens, the great magnifying power of the cornea and humors of the patient's eye, gives to the papilla an apparent magnitude larger even than that of the pupil; but in this way, it cannot be well seen as a whole, and generally requires the eye of the observer to be brought inconveniently near to that of the patient. Instead, then, of using the patient's eye as a powerful single microscope, in actual contact with the objects on the fundus oculi to be examined, and thus viewing them directly, it is better to obtain a smaller but more defined image, although an inverted and virtual one of those objects, by converting the patient's eye for the time into the object-glass of a compound microscope, which we do by holding in front of it a thick convex lens. The image which we then see of the several parts of the fundus oculi is an inverted one, like that of an object examined with any ordinary compound microscope; the entrance of the optic nerve is seen towards the temple instead of the nose; the macula lutea appears to the nasal side of the optic nerve instead of the temporal, and a little below the level of the nerve instead of above it; while the principal trunks of the retinal vessels, instead of branching in the direction of the temple to embrace the macula lutea, seem to bend towards the nasal side of the eye. The apparent position, in fact, of all the objects on the fundus, viewed in this way, is the reverse of their real position.

"The most important optical deception which arises from viewing the fundus in the indirect method, as well as the most puzzling to a beginner, affects the papilla. The student has probably heard, that the papilla, in the glaucomatous eye, is cupped or excavated, but to his view it appears quite the reverse, it appears rounded and prominent.

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* Dr. A. Von Graefe on Glaucoma, p. 308.

"To comprehend clearly that this is an illusion, all that one requires to do, is to impress with the head of a pin a small dimple on a bit of paper, and put this under a compound microscope, with the concave side of the impression uppermost. The same appearance will then be seen, which is presented by the papilla of the glaucomatous eye, viz., that of a rounded and protuberant surface.

"This optical deception arises from the inversion which the image suffers by being viewed through the compound microscope. We judge that an object, viewed with a single eye, is convex or concave, solely by the manner in which light is reflected from the body under examination. The light which falls obliquely on a convex surface illuminates that side which is nearer to the source of light; the side farther from it is in shade. The light which falls obliquely on a concave surface illuminates that side which is farther from the source of light; the side nearer it is in shade. Let the source of light remain in the same position, but invert the image of the object illuminated, so that the light which falls on the farther side of it may seem to fall on the near side, which is the case when we look through the compound microscope at the hollow on a bit of paper, or when we examine the optic papilla through the compound microscope formed for the occasion by the patient's eye *plus* the convex lens held in front of it; and both the dimple on the paper and the papilla, although they are actually cupped or concave, will then appear convex and prominent.

"If, on the other hand, we turn the convex side of the dimple on the paper uppermost, and view it with the compound microscope, it appears concave. The inversion of its image causes the light which falls on its near side, to appear as if it fell on its further side, and thus the eye is subjected to a deception the reverse of the former, and from which it cannot free itself. If there be cases, then, in which the end of the optic nerve within the eye actually projects in a convex form, they will offer, when examined in the indirect method, the appearance of a cup or depression.

"Such facts have long been familiarly known; the apparent transmutation of an intaglio into a cameo, or that of a cameo into an intaglio, under the compound microscope, being a common source of amusement, fully discussed by Sir David Brewster in his 'Letters on Natural Magic, Letter V.' Important as their bearing is on pathological examinations of the eye, they seem to have escaped the notice of ophthalmoscopists, till attention was directed to the subject by Dr. A. Weber, in a paper in the 'Archiv für Ophthalmologie,' Band II., Abtheilung I., Seite 141."

I would not be understood as depreciating the value of ophthalmoscopic observation in glaucoma. The modern pathology of the disease rests upon it, and, taken in connection with other symptoms, it is one of the most important and conclusive, and in some otherwise doubtful cases it may be indispensable for correct judgment and successful practice. But there are cases in which it is inexpedient, and others in which it is impossible to use the ophthalmoscope—in which, nevertheless, the diagnosis of glaucoma is from other symptoms made sufficiently clear to justify and require surgical intervention. Certainly no gentleman should, from want of sufficient familiarity with the ophthalmoscope to detect arterial pulsation and excavation of the optic nerve, hesitate in an otherwise well-marked case of glaucoma to operate either by iridectomy or intraocular myotomy. Especially should he not hesitate when one eye has been lost by glaucoma, and similar symptoms are commencing in the other, pointing to the same result. If the symptoms are equivocal or incomplete, provided they are the same that preceded and accompanied the extinction of vision in the other eye, and provided also that one or two of the symptoms plainly indicate intraocular pressure, and that in the treatment of the eye first attacked, as well as that now threatened, the ordinary general and local means appropriate to the relief of inflammation of the internal textures of the eye have failed to relieve; although there may be a doubt whether the disease is simply glaucoma, there can be none as to the propriety of performing one of the three surgical operations by which intraocular pressure may be relieved. In such a case it might be expedient to adopt at first the very simple operation of paracentesis (evacuation of the aqueous humor through a small puncture in the cornea), and to postpone the more effective but somewhat more difficult or complex operation of iridectomy or intraocular myotomy until it is found that, having attained by paracentesis a temporary relief, confirming the diagnosis, the symptoms recur. There can now be no question that the practitioner has to choose one of two alternatives —either to perform the operation of iridectomy, or intraocular myotomy, or to abandon the patient to irremediable blindness.

It has been formally objected to the operation of iridectomy, that it does not address itself to the morbid processes of the disease which it is intended to relieve—that it cannot prevent or relieve the glaucomatous habitus. That it is a preventive, remedy, or cure, for glaucomatous blindness, by no means implies that it controls the morbid processes, but only that by removing one of their effects, pressure on the retina and optic nerve, it enables the organ to pass through that process without accomplishing the blindness otherwise inevitably incident to them. So tracheotomy cures a case of croup, not because it relieves the inflammation of the mucous membrane of the larynx, but mainly because it enables the patient for a time to breathe in spite of it. In either of these diseases the operation, though not controlling them, does, by the relief of a single symptom, effect something more than this negative good, and probably facilitates and expedites the curative influences of nature and art bearing upon them.

Still it is rational and prudent not to regard iridectomy as an absolute cure for glaucoma, or any of the other diseases in the treatment of which it is claimed to be useful, but only as a necessary adjunct, without which all other means and appliances, local and general, are almost nugatory. In the words of its able originator and advocate, "It is its efficiency in diminishing pressure, and not any special relation to some particular disease, that renders the operation valuable, or determines or justifies its employment." * For it must be confessed that notwithstanding all the light that modern research has thrown upon it, glaucoma is often, in its early stages, a disease difficult to diagnose, and the practical value of the operations of iridectomy or incision of the ciliary muscles is not lessened; and their applicability is perhaps more easily recognized by regarding them only as means more effective and permanent than any heretofore known for the relief of the condition of excessive intraocular pressure.

Of the indications of this condition, the only absolutely indispensable and unmistakable ones are, as it appears to me, dilatation of the pupil, hardness of the globe, and obscuration of vision continued or recurrent. Not that these three symptoms constitute glaucoma, or that they are actually ever found unconnected with others; but that when they co-exist, whether alone or in combination, with other symptoms, there is, in the failure of speedy relief otherwise, an imperative demand for surgical aid.

The objection has been raised, that removing a large portion of iris would disturb the accommodation of the eye. Whether or not it does, my limited experience does not at present enable me to determine; and in fact, for the want of the needful observations and dates previous to the access of disease, it must often be very difficult to do so. Those who have had the largest experience, find this to be not a well-grounded objection, and on the contrary find in cases marked by flattening of the cornea an improved power of accommodation from the compensating effect of the restored convexity of the cornea. This objection, if valid, is of no weight as against any operation for the relief or prevention of blindness, for an eye without any internal power whatever of changing its accommodation of sight is better than an eye without sight.

Another and more trivial objection is the deformity of a dark speck on the sclerotic. To this is replied, that if the iris itself is dark, this is hardly observable; that at the period of life when the operation is required for glaucoma, if observable it is unimportant; and that if it is desirable wholly to avoid this defect, it can be avoided by making the incision on the upper side of the cornea, so that it shall be covered by the upper lid.

Another reason for the general neglect, in this country, of the operation of iridectomy for glaucoma, is probably an exaggerated

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* Conclusion of von Graefe on Glaucoma.

idea of the difficulty of performing it, and also perhaps a misapprehension of the mode of performing it from directions as usually given. For some remarks on this part of the subject, I shall in a future number claim a small space.

HOUR-GLASS CONTRACTION.

[Communicated for the Boston Medical and Surgical Journal.]

Messrs. Editors,—In the discussions of the Boston Society for Medical Improvement, reported in the last No. of the Journal—August 7th—Dr. Ayer reported cases of hour-glass contraction following the use of ergot, and asked if other gentlemen present had noticed the same. It was also suggested by another that the use of ergot in labor is followed by retention of the placenta. The influence of ergot on the child was also considered.

In regard to the first inquiry, as to the influence exercised by ergot in producing hour-glass contraction, so far as my observation extends, I have met with but one case, in a practice of fifteen years. It followed the use of ergot in large and repeated doses, in a case of extremely difficult labor, in which labor could be finished only by exciting the uterus to violent action. The case was primapara. Having waited nearly two hours after the birth of the child, for the spontaneous delivery of the placenta, whilst friction of the bowels, pressure on the womb and gentle tractions of the cord were being made, I introduced my hand into the uterus, where it was immediately arrested in its progress by what seemed to be the fundus; but running my finger up the cord, I found it closely embraced by what I now understand to be an hour-glass contraction. It was with some considerable difficulty that this rigid contraction was overcome sufficiently to pass my hand through it, but which being accomplished, I found my hand in a second cavity, with my wrist embraced by the recently dilated portion. I succeeded, very readily, in detaching the placenta from the fundus uteri, to which it was firmly attached, not a drop of blood, up to this time, having escaped the external organs. The contracted portion yielded very readily to my hand, when withdrawn with the placenta. Rapid recovery followed, without one untoward symptom.

In regard to the second inquiry, as to the influence of ergot in retarding the delivery of the placenta; so far as I have had opportunity of judging, retention does follow the use of ergot. Almost invariably after the use of ergot in labor, I am obliged to introduce my hand and remove the placenta. And, although no sensible signs of uterine contraction may attend such artificial delivery, hæmorrhage does not follow to the extent that it does in similar circumstances where no ergot has been used. Alarming hæmorrhage frequently follows the latter case, but never the former.

After careful observation on the influence of ergot on the child, I cannot say I have seen an instance in which the morbid appearances following the use of ergot, might not more rationally be attributed to other causes than to this drug.

In conclusion, I can say with Dr. Storer, as the result of my observation in the use of ergot in obstetric practice, it is one of the most useful and satisfactory articles of the Materia Medica—and, properly used, inflicts no injury to the mother, and, so far as appears, none to the child.

W. A. Harvey.

Yarmouth, Me., August 21, 1862.

ON THE PATHOLOGICAL ANATOMY OF PUERPERAL FEVER.

By Professor Buhl.

Professor Buhl, of Munich, having examined the bodies of fifty women who died of puerperal fever, states that a constant and characteristic appearance is a pappy, red or dark brown or grayish-black mass lining the inner wall of the uterus, giving forth sometimes a gangrenous and sometimes a putrefactive smell. It is this matter which supplies the poisonous infection of puerperal fever; but as to the cause of the production of the fever differences of opinion prevail; some regarding it as the consequence of the immediate passage of poisonous matter into the womb, while others think that a preliminary poisoning of the blood by misasmata takes place, the corrupted mass being only a secondary result. Anatomically, we may distinguish two forms of puerperal fever—puerperal pyæmia and puerperal peritonitis—forms which may be clinically distinguished, as it is of importance in prognosis that they should be so.

Puerperal pyæmia does not usually prove fatal before the ninth day, and frequently not until after the third week. It is chiefly met with where the disease does not put on an epidemic form, the veins being the channel of infection; coagula, accompanied by suppuration, being found in the veins of the walls of the uterus, in a pampiniform plexus or in a spermatic vein. In no instance did the author ever find both spermatic veins obstructed, and in only one case was the entire vena cava inferior filled with adherent coagula. These coagula and their subsequent caseous metamorphosis are quite sufficient to establish the existence of puerperal pyæmia, the so-called metastatic abscesses being seldom met with. Œdema of the lungs and ecchymosis of the pleura were frequently met with by the author.

The puerperal peritonitis was more frequent, more violent, and more rapidly fatal than the puerperal pyæmia, inasmuch as death sometimes occurred within two days after delivery, and in but few cases was delayed to the third week. Of the 32 cases of this variety only 2 were chronic, proving fatal in the course of six or eight weeks. In all the cases purulent exudation was found, in 18 instances occupying the tubes, and in 14 the subserous tissue of the uterus. The two conditions were found combined in only 4 instances, and a plugged condition of the veins was observed only in 5 instances. Of the 18 instances in which puerperal pyæmia occurred, in only 2 was there pus in the tubes, and in only 1 subserous effusion of pus; so that of 20 cases of tubal suppuration, in 18 peritonitis was present, and of the 14 cases of subserous suppuration peritonitis occurred in 13. On the other hand, of 23 cases of purulent coagula of the veins, in only 5 did peritonitis occur, and in all these there was subserous or tubal suppuration also, and in 16 cases in which these parts exhibited no pus, no peritonitis took place. The disease of the veins thus bore no relation to the occurrence of peritonitis. It results from these facts, that peritonitis may arise either from the immediate passage of the poisonous material from the uterus through the tubes, or from the conveyance of this from the inner wall of the uterus by the lymphatics. The supposition that the pus may have proceeded from the peritoneum into the tubes is negatived by the fact of these having been free of it in fourteen cases; and the pus of the peri-uterine, subserous tissue or of the lymphatic vessels must be regarded rather as a consequence than a cause of the peritonitis, inasmuch as it was absent here in twenty instances. The prognosis is not alike in these two modes of origin of the peritonitis. That induced by the pus from the tubes is a much slighter and more simple inflammatory process, met with when there is little or no epidemic extension of the disease; while the peritonitis resulting from lymphatic absorption is a much severer form of disease, preceding or accompanying general infection, and is especially met with in the epidemic form.

In both of the principal forms of puerperal fever, besides the morbid uterine appearances there were found—1. Almost constantly swelling and watery infiltration of the retro-peritoneal, inguinal, and (though seldomer) the mesenteric glands. 2. Osteophytes on the internal surface of the cranium. 3. In several cases, especially in pyæmia and lymphatic absorption, a distension of the cortical substance of the kidney, together with the microscopical appearances corresponding to the acute stage of Bright's disease. In only two of fifty individuals was tuberculosis found.—*Froriep's Notizen.* 1861. No. 13.—*Med. Times and Gazette.*

PHOSPHORUS NECROSIS.

In a recent clinical lecture by Mr. Paget, in speaking of a case of Phosphorus Necrosis, he remarked as follows:—

In this case there was a special interest in the fact that it was an exception to the almost absolute rule that the disease only occurred in lucifer-match makers. Lucifer-match makers were hard worked and were kept in a bad atmosphere, and to this, and not to the phosphorus, some had attributed the disease. Anyone long enough exposed to the fumes of phosphorus suffered from necrosis of one or both jaws, and the majority employed in the manufactories suffered at one time or another from this disease. But there were certain conditions which were necessary before a person became liable to suffer. So long as the mucous membrane was intact, and the teeth sound, there was no mischief. This had been carefully ascertained, and was quite certain. In one of the large German manufactories it had been found that if the workmen had broken or decayed teeth, gumboils, or anything which bared the periosteum, they became liable to suffer, and this was confirmed by experiments on animals. It was found that if healthy rabbits were kept in a chamber into which the phosphorus fumes were admitted, no disease of the jaws followed. If, however, their teeth were broken, or if in any way the periosteum were exposed, then they began to suffer. Thus, then, it may be accepted as a well ascertained fact, that unless the phosphorus fumes come in contact with the periosteum, the disease is not produced.

The manner in which the fumes produce necrosis is also singular, unlike other caustics, as, for instance, nitric acid. It does not act merely locally, destroying what it touches, but it seems to affect more or less the neighboring bone—part of it, or in time the whole of it. There is no other substance which, when locally applied, seems to produce results over so large a space. Not unfrequently it would thus destroy the whole bone attacked, beginning first at a single point of bared periosteum, as the socket of a tooth after extraction. In this peculiarity of action, it appears to resemble less a mineral than an organic poison.

So far as has been at present ascertained, no bones except those of the upper and lower jaw have been attacked; although of course, now and then, there must have been, as from accidental strumous disease, exposure of other bones to the fumes. The contiguous nasal bones never suffered, at least not primarily, but sometimes as a sequence to disease of the jaw bones. This curious choosing of certain structures shows that these bones have distinctive peculiarities, for which, by comparison of their texture with other bones, we cannot yet account. It was just as difficult to tell why mercury should affect the jaws more than other bones. It is the more difficult to explain why these bones should suffer from mercury and phosphorous acid, as they are not liable to be affected by organic diseases, as syphilis or gout.

In reference to the way in which the necrosis was brought about, Mr. Paget said that inflammation of the periosteum was the first step. He showed a specimen in which new bone had been deposited at many points, as a result of this process. This was a constant first effect, and new bone was always to be found, more in the lower than in the upper jaw. In a few—very few—cases the disease would stop here. Generally, however, the result was necrosis of the whole of the affected bone, and that, too, of the new bone as well as the old.

In the case of removal of the greater part of the lower jaw (the first case related), the periosteum of the remaining part of the bone was inflamed, and probably to some extent the necrosed bone might be replaced by new bone.

In a case of phosphorus necrosis, it was difficult to say, when once begun, how it would end. In some a limited part of the bone would separate, but in others the whole substance of the maxilla would become necrosed. Mr. Paget had observed that the patients were much disordered in health, but he would not venture to say that there was a special cachexia in this disease. There was, however, much more cachexia than was usual in local disease to that extent. The patients were peculiarly pale, sodden-looking, and exceedingly feeble. They were not thin, but looked as if the blood were deficiently red. There was generally also some bronchitis. It was a matter of inquiry whether the phosphorous acid acted as a poison in the blood—the necrosis being the local manifestation of it.

An important question was, Could the disease, by proper care, be entirely prevented? In some conditions of perfect ventilation, and great care as to the condition of the mouth in those exposed, no doubt it could. Since 1847, in the manufactory at Nuremberg, only one case had occurred in fourteen years. This improvement was due to perfect ventilation, great cleanliness, and inspection of the teeth. It is whilst dipping the matches that exposure to the fume occurs. It is necessary that the fumes should, as much as possible, be blown away from the workmen. No one with broken teeth, gumboils, &c., should be allowed to work at dipping the matches.

The allotropic phosphorus does not fume, and thus, so far as the health of the workmen is concerned, is better. It is, however, more expensive, and more liable to take fire. It is to be regretted, Mr. Paget said, that similar regulations to those in the German manufactories are not adopted in England.

In treating this disease when established, we ought of course to advise removal from the influence of the fumes, fresh air and good diet, and thus hope to limit the necrosis. Is it advisable, when the necrosis is limited, to cut it out? Mr. Paget believed it was; but it was necessary to be cautious in taking for granted that the necrosed part was the only part diseased. There might be periostitis, in the earlier stage of the disease, beyond, so that by the removal of the necrosed bone it is not clear that we should relieve.

After removal in these cases, the repair is very remarkable. In the case of the boy in Darker Ward there was a very large quantity of new bone in the position of the ramus and body. Mr. Paget said that he had seen no case in this disease in which death had occurred, but it would sometimes prove fatal by exhaustion and the supervention of phthisis.—*Med. Times and Gazette.*

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

Aug. 11th.—*Continuation of the Discussion on Ergot.*

Dr. J. Bigelow thought that a recommendation of the use of ergot, emanating from the Society, and published with their proceedings, should be accompanied by a caution as to its indiscriminate use. When used without discretion it is dangerous both to mother and child, and in many cases where it is frequently employed, he should prefer, if necessary, to use the forceps, as more manageable. He commended the candor of Dr. Morland in reporting a fatal case in his practice, and thought that if others would do likewise the danger of the drug would be more apparent.

Dr. Storer said he was always ready to yield to the opinions of those who were older and more experienced than himself; but he believed he had had as much experience in the use of ergot as any other practitioner in Boston, and he had never known injury to follow its use when it was indicated. He thought that gentlemen who had had much experience with it differed entirely from Dr. Bigelow in their estimate of its value. He did not hesitate to recommend it to his pupils as harmless when properly given—for instance, when the labor is not a first one, when there is sufficient dilatation, when the head is low in the pelvis, and the pains are absent.

Dr. Putnam said the point was, to know when ergot *was* indicated. The promptness and energy of its action under suitable conditions were most satisfactory. For instance, Dr. P. had been recently consulted in a case in which the labor, after having progressed favorably, was suddenly, and without obvious cause, suspended. There was no mechanical obstacle, and, after waiting two hours, fifteen grains of ergot were administered. The pains at once returned, and the labor was completed within half an hour. On the other hand, he had seen cases where everything seemed to indicate it, and yet it appeared to act injuriously. The difficulty is, that when once it begins to act it cannot be controlled. He had not seen injury to the child in his own practice, but he had no doubt that it was sometimes stillborn, possibly, as some suppose, from the poisonous properties of ergot, but more probably from the effects of violent and unremitting pressure. The mother also is exposed to severe injury.

For these reasons, great as is the temptation, he never prescribed it before delivery without some misgiving. After delivery, or just before the head passes the perinaeum, in cases in which the patient had "flowed" in previous labors, it is of inestimable value.

Dr. Bigelow said that powerful remedies were safe when really "indicated;" but if extensively recommended without an accompanying caution as to their use, superficial readers and young practitioners would be led to employ them rashly. When the drug was first introduced into this country, practitioners eagerly resorted to it as a means of shortening labor; it was administered to thousands of women, indiscriminately, and probably thousands of children died in consequence, from the long continued pressure on the head, inducing a state analogous to apoplexy. The journals of that day teem with cases, and with the conclusions arrived at by the profession, that "ergot kills the children," and this was the experience of the most able and judicious physicians, until at length it got to be known that ergot can be given with propriety only towards the end of labor, and when no impediment to delivery exists save the insufficiency of the pains. Exceptional cases may occur, but this is the general law. Dr. B. mentioned a case of twins, in which, after the first child was born well, a dose of ergot was administered to expedite the birth of the second, which, after twenty minutes continuous pain, was dead-born.

Dr. MINOT said he had lately attended a patient in her second labor, whose first child was delivered with forceps, on account of inefficient pains. The same state of things occurred this time—the pains seemed too feeble to expel the child, although there was sufficient dilatation, and the head was low in the pelvis. He again applied the forceps. After the head was born, a delay of nearly twenty minutes occurred, from the difficulty of extracting the shoulders, which were very broad, and the child, a very large one, was stillborn. He regretted not having given the woman ergot, which, he thought, would have saved the child.

Dr. BIGELOW was of a different opinion.

Dr. PUTNAM thought the forceps much more appropriate to Dr. Minot's case than ergot would have been. He should have feared sloughing of the soft parts from the long-continued and unmitigated pressure caused by ergot.

Dr. GEORGE HAYWARD, Jr. had had a case similar to Dr. Minot's, in which ergot seemed to act most favorably, although the confinement was a first one. The pains had ceased after labor was well advanced, and it seemed as if the child would have been born in a few moments, had they continued. The child was large, but the mother was a tall, large, and well-shaped woman, with a capacious pelvis; the soft parts were relaxed, and the head was not jammed. Aware of the serious objections to giving ergot in a first labor, Dr. Hayward delayed longer than he otherwise should have done, and it was not till the patient was getting exhausted and discouraged that he gave the infusion, freshly prepared, which produced its peculiar effect in a short time, and in a few minutes after it began to operate the child was born alive. The placenta soon followed, and the woman made a good recovery.

Dr. STORER said all agreed that ergot was a powerful agent, and sometimes produced bad effects. The question was, whether it were more likely to do harm when improperly used than any other powerful remedy. If he were lecturing to young men, he would go into the particulars respecting its mode of employment; but he was addressing practitioners, not students.

AUG. 11th.—*Double Uterus.*—Dr. STORER showed some drawings and oil paintings illustrative of a case of double uterus, made by Mr. Edgar Parker, of Saxonville, student of medicine, and accompanied by an account of the case.

The patient was an Irish girl, unmarried, about 25 years old, who died from the effects of poison, probably administered by herself, under the belief that she was pregnant. The organ was completely double, the two cavities being entirely separated. The septum was exactly median, and extended from the os to the fundus. There were no signs of pregnancy. The friends would not allow the uterus to be removed.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, AUGUST 28, 1862.

The proper use of quinine as a prophylactic against malarious disease is so important a topic at the present time, that we feel ourselves under special obligation to the Surgeon-General for the use of the following letter from one of the elders of the profession, the venerable Dr. Mussey. We took occasion last week to notice somewhat at length Dr. Rogers's valuable pamphlet on the subject, thinking it might fall under the eye of some one of our army surgeons who might derive profit from his suggestions. Dr. Mussey's letter is equally valuable, and we avail ourselves of the privilege of printing it with much pleasure.

"Littleton, Mass., Aug. 20, 1862.

"*My dear Sir*,—Within the last few days, the quota of men required of this township towards the 300,000 has been made up by enlistment rather than by drafting, and I feel no small sympathy for these patriots, one half of whom, I am told, are married men; and the liabilities they, with thousands of others of a like description from the old Bay State, will incur from leaving a pure atmosphere and entering one loaded with miasm, impel me to make a suggestion by way of inquiry. Can the quinine be furnished in sufficient quantity for all our troops? It is generally understood to be a prophylactic of miasmatic fever; and it is said to be safe to economize it so far as to give only two grains a day to each man. Dr. Mears, of Indianapolis, made what he regarded as a valuable experiment with quinia when malarious fever was very prevalent within the range of his professional visitations. He took *twelve* grains of sulphate of quinia every Monday morning—rode night and day in a highly concentrated miasmatic atmosphere, and had uninterrupted health. This he continued through the warm season, and the epidemic having greatly abated as the cool season advanced, I think it was in November, he omitted his quinine. In about two weeks he had a regular attack of the fever. In Hays's Journal, either in 1860 or 1861 (I have not the volumes here), a physician of Charleston, S. C., Dr. DeSaussure, has given an interesting paper on the power of quinine as a prophylactic against the poison of miasm.

"In the Chicago *Medical Examiner* for June, 1862, there is an extract from the Edinburgh *Medical Journal*, in which the author, Dr. Adamson, says that he has employed with success the sesquicarbonate of ammonia with the liquor arsenicalis in cases which had long resisted quinine; that he had treated ten cases with this combination alone, all successful—*seven* quartan, *one* tertian, *two* quotidian.

"His formula is—℞. Sesquicarb. ammon., grs. v., dissolved in ʒi. of water, with the addition of five minims of liquor arsenicalis. All this given at a dose, and 'repeated every *two* or every *three* hours according to the frequency of the paroxysms.' No unpleasant effects, save some degree of griping in one patient, and itching of the eyelids in three.

"I remember that the late Dr. Sewall, of Washington, D. C., brought himself into notoriety soon after he commenced practice there, by using the arsenical solution in miasmatic fever. I think that he relied upon it as the principal if not the sole remedy.

"If our New England men could go South provided with a change of flannel waistcoats and drawers, woolen socks, thick-soled shoes or boots, and be supplied with coffee or tea, and good water instead of alcoholic mixtures, they might well sustain themselves in conflict with any men at the South, especially if led by officers whose brains are not bewildered by anything worse than coffee. The soldiers at Richmond, if deprived of their spirit ration to save their breadstuffs from distillation, will be far more formidable in a prolonged fight than they have been.

"Now, my dear Sir, if you regard what I have said as an intrusion, or if I have said nothing but what has been well known and acted upon in Massachusetts, then please to lay it to the account of the solicitude of an old man for his country and for the brave sons of New England. Very respectfully yours, R. D. MUSSEY.

"Dr. DALE, *Surg. Gen. of Mass.*"

In a subsequent letter Dr. Mussey says :—

"*My dear Sir,*—I thank you for the kind and prompt notice of my remarks. It is gratifying to learn that our soldiers are adequately provided with the quinine. I see in the Boston *Medical Journal* of this week, a notice of Dr. S. Rogers's pamphlet on the protective virtue of this medicine against miasmatic fever, in which he recommends larger doses than by others have been said to be necessary. Is it not probable that different quantities of the antidote would be required in a proportion corresponding with the degree of concentration of the atmospheric poison?"

OAKUM AS A SUBSTITUTE FOR LINT, IN GUN-SHOT AND OTHER SUPPURATING WOUNDS.—Dr. Lewis A. Sayre, Surgeon to Bellevue Hospital, New York, writes as follows to the Editor of the *American Times*, on a subject which at present possesses peculiar interest.

"I have for many years past been in the habit of using picked oakum, in all cases of suppurating wounds, particularly in connection with opened joints, where the suppuration is excessive. The great number of gunshot wounds now in Bellevue Hospital, where I use it entirely to the exclusion of lint, has furnished an opportunity for a number of army surgeons to examine its advantages, and they have requested me to make the subject more generally known to the profession through the medium of your valuable medical journal.

"One of the objects of lint applied to a suppurating wound, is to absorb the discharge ; now as most of the lint is composed either entirely or in great part of cotton, it acts more like a tampon, or a retainer of the secretions, than as an absorber.

"If you will take a bale of cotton and immerse it in the river for one month, or even longer, and then remove it, you will find on opening it that the cotton in the centre of the bale is perfectly dry, thus proving that it cannot be soaked through any great thickness, or that it will not absorb moisture. So, when placed over a suppurating wound and left for some hours, it will be found perfectly dry except at the point of contact : acting, in fact, like a bung in a barrel, or a cork in a bottle—to *prevent* the escape of the pus—which necessarily burrows in different directions, thus forming extensive abscesses, and adding greatly to the danger of the patient ; and when removed, the pus will gush out in large quantities. Now, if you place picked oakum over these same wounds, you will find after the same number of hours, that the oakum is perfectly saturated with pus, and the wound itself almost perfectly dry and clean—the oakum acting like a syphon, and discharging the contents of the abscess by capillary attraction. It is necessary to place under the wound a piece of India-rubber cloth, or oiled muslin, for the sake of cleanliness; and in case of much inflammation, by simply wetting the oakum in cold water, and wrapping the oiled muslin around the limb, or wounded part, so as to exclude the air, you have at once the neatest and most comfortable poultice that can be applied to it. In gunshot wounds, which go through and through a limb, particularly if made with the 'Minie ball,' the whirl or screw of the ball entangles in its thread the muscular fibres and cellular tissue, and separates them from their attachments for a long distance from the real track of the ball itself.

"As the muscle and tegumentary tissues are more freely supplied with blood-vessels than the fat and cellular tissue, the consequence is that they begin to granulate much more readily than those other tissues, and will thus often close up the wound, and prevent the free escape of pus, before those parts have perfectly healed, and thus lead to the formation of extensive secondary abscesses. I, therefore, in all cases where no blood-vessels prevent it, pass an eyed probe through the wound and draw through it a few fibres of the oakum or tarred rope, which keeps it perfectly free, and the tar is a very excellent antiseptic, and removes all unpleasant odor.

"A few fresh fibres are twisted on the end of the seton at every dressing and drawn into the wound, and the soiled piece cut off and removed with the dressings.

"Another great advantage which the oakum possesses over lint, which in these times of heavy taxation is not to be overlooked, is its cheapness. Lint at the present time costs from $1.25 to 1.35 per pound, whereas the finest picked oakum can be obtained at the 'Empire Oakum Works,' No. 149 West 39th street, for ten cents per pound. And if it were universally adopted in the army it would save many thousand of dollars to the Government, and I confidently believe the life of many a soldier. And no surgeon who has once used it will ever resort to lint again—particularly if the lint is made of cotton."

EXEMPTION OF FELLOWS OF THE MASSACHUSETTS MEDICAL SOCIETY FROM MILITARY DUTY.—It has been decided by the proper authorities that the members of the Massachusetts Medical Society are exempted from draft, by their charter, one section of which reads—"The Fellows of the Society shall not be liable to be enrolled or mustered in the militia of this Commonwealth."

It will be well, however, for any Fellow whose name is likely to be taken by the enrolling officers, to exhibit at the proper time to the "Commissioners to determine claims of exemption," the evidence he has that he is a member of the Massachusetts Medical Society. Such a course will prevent all subsequent misunderstanding or trouble.

VENOMOUS CATERPILLARS.—A most singular case, perhaps the only one on record, of death caused by caterpillars, occurred a few days ago in the commune of Dardilly, near Lyons. A little boy, not more than eight years old, had gone into a neighboring wood in quest of birds' nests. Perceiving one on the top of a tree, he climbed up; but in so doing shook down an immense number of caterpillars, many of which fell on his shirt, his only upper garment, and soon covered his breast, which was bare, and penetrated to his arms and shoulders. For a few minutes the child took no notice of this; but he soon felt such an itching sensation, that he was compelled to get down, and run home for assistance. Upon examination, his skin appeared covered with large red spots, which were soon followed by a general swelling, then by fever, somnolency, and delirium; and, notwithstanding all medical care, death ensued in the course of a few hours. The kind of caterpillar which caused this disaster was the *Bombyx processionea* of Réaumur, a very venomous species. Botanists know that if a nest of these insects be touched, or only stirred up with a stick, the person so doing, and remaining for some time near the spot, within reach of the emanations arising therefrom, will be attacked with a papulous eruption of a more or less confluent nature, which will last several days, and be attended with violent itching. Dr. Calmell, physician to the Hospital at Charenton, had preserved a nest of these caterpillars in a large glass phial, which was not opened for upwards of ten years. At length, the phial being accidentally wanted, it was opened in the presence of several persons, who all caught the eruption. This strange property has even suggested to several members of the faculty the idea of using these caterpillars in cases in which it is required to subject the skin to a strong and permanent irritation. We may remark, in conclusion, that the number of caterpillars which infest the trees this year all over France, is quite unprecedented—a circumstance which has called the attention of the authorities and of various learned societies to the question of protecting insectivorous birds, the only really efficacious enemies of the caterpillar.—*Galignani's Messenger.*

A correspondent of the London *Lancet* relates a similar case in his practice, though fortunately not fatal—the caterpillar in this case being, as the writer calls it, "of the sort called the woolly-bear." The eruption resembled that of urticaria, became vesicular, and was attended with much constitutional disturbance.

St. Mary's Hospital, San Francisco.—This institution has just been opened by the Sisters of Mercy. "The building," says the *Medical Press* of that city, "is most admirably located, on the corner of Bryant and First streets, on a beautiful slope, overlooking the Bay, to the south and east. It is 75 by 150 feet on the ground, and four stories high; divided into twelve large and commodious general wards, and a like number of smaller wards; all fitted up in the best modern style, with every improvement calculated to make it compare favorably with the best hospitals in other cities. The Hospital is under the professional charge of Dr. Lee, as Resident, and Drs. Bowie, Toland and Whitney, as Visiting Physicians and Surgeons. An institution thus located, arranged and attended, must, in the nature of things, afford valuable opportunities for the practical study of medicine and surgery, and we have the assurance that these advantages are to be realized by the opening of the wards and operating room to practitioners and students of Medicine, and the generous politeness with which its medical officers explain cases at the bedside and operating table."

Supplementary Mammæ.—Dr. Turner, of Newport, R. I., reports the following case, published in the annual "Communications" of the Rhode Island Medical Society.

"On the 2d of March, 1860, I attended Mrs. T——, in her first labor. Nothing noticeable occurred in the progress of the case, but coincident with the appearance of the milk in the mammæ, two glands in the axillæ (one in each) became enlarged, and secreted a sensible quantity of milk: so much, that a decided stream could be impelled to a considerable distance. There was no nipple or areola, and the largest of the glands was of the size of a large shell-bark, the other somewhat less. Dr. Hare speaks of the case he observed, as a detached portion of the mammary gland: mine, on the contrary, gave me the impression of distinct supplementary mammæ. Dr. Hare also speaks as if the case was of rare occurrence, and I do not recollect seeing any other similar record. In my case, the effort for symmetry, generally indicated, seemed to have prevailed."

Dr. H. S. Johnson, of Stoke-upon-Trent, mentions, in a late number of the London *Lancet*, the case of a woman with three breasts, the supernumerary one being just below the left mamma, and after confinement was found to be two and a half inches in diameter and full of milk. Before pregnancy it resembled a mole.

A Mode of Administering Cod-Liver Oil.—Many persons are unable to keep down cod-liver oil, returning it several hours after taking it, even when they have taken it at the beginning of a meal, and strange enough, only vomiting it after the digestion of the aliments has terminated. M. Dannecy having been consulted by many inconvenienced in this manner, and who yet swallowed the oil without any repugnance, recommended them to take after each dose from eight to ten grains of calcined magnesia suspended in a small quantity of water. The success of the plan was most complete.—*Union Médicale*, No. 153.

Births and Deaths in Paris during 1860.—There were born in the *arrondissements* in 1860, 51,056 individuals, and 41,261 deaths took place during the year, giving an access of births over deaths of 9759. Among the 51,056 children born, 14,092 were illegitimate. During the year seven persons died, aged between 95 and 100.

Use of Chloroform in Midwifery Practice.—Professor Martin, of Jena, as the result of observation in nearly 1000 cases, comes to the following conclusions:—1. Narcosis is induced very easily during childbirth, from a half to a drachm of chloroform usually sufficing. 2. The chloroform induces no unfavorable symptoms, nor exerts any ill effect upon the activity of the pains, which at most are slightly weakened at first. 3. Ill consequences do not succeed to the administration, providing the sleep which usually follows the narcosis, and during which the elimination of the chloroform seems to take place, be not disturbed. The favorable effects thus observed, Dr. Martin attributes to his mode of procedure—viz., commencing with small quantities of chloroform poured upon a small handkerchief, and so presented to the patient's mouth and nostrils that she may continue to breathe atmospheric air while inhaling the chloroform,—*Medical Times and Gazette,* from *Froriep's Notizen,* Vol. iv., No. 22.

A Board of Health has been established in the city of Sacramento, California, and a Constitution adopted by the Board, and published. The *Pacific Medical and Surgical Journal* advocates the establishment of a similar Board in San Francisco, the sanitary regulations of which city are represented as very deficient.

At the Fourth Commencement of the Medical Department of the University of the Pacific, held March 13, 1862, the degree of M.D. was conferred upon five candidates. The number of graduates of this school are as follows:—Two the first session, one the second, six the third, and five the fourth. The daily attendance, during the last session, was almost twice as large as ever before.

Dr. S. Norton, of Wateringbury, Eng., writes to the Editor of the *Lancet* that a woman in his neighborhood, now aged 74, still continues perfectly regular in her catamenial periods.

Books of the Sydenham Society.—The members of the Sydenham Society are informed that the Sydenham books for the year have arrived, and may be had on application at No. 1 Staniford street.

Notice.—We are requested to announce that the Forty-fifth part of Braithwaite's Retrospect was mailed on the 21st inst. from this office, to all members of the Massachusetts Medical Society residing out of the city proper, whose names are on the Treasurer's book as having paid their assessments. Members who have paid, and have not received the part, are requested to forward their vouchers, addressed to the Librarian, at the office of the Medical and Surgical Journal, and the work will be sent by return mail. Vols. 23 and 24 of the Library of Practical Medicine will be sent by mail to members who have not received them, and are entitled to the same, on receipt of the postage (18 cents), or by express, on application at the office of this Journal.

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, August 23d, 1862.

DEATHS.

	Males.	*Females*	*Total.*
Deaths during the week,	45	40	85
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	54.8	50.6	105.4
Average corrected to increased population,	..	..	120.4
Deaths of persons above 90,	..	1	1

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
14	15	0	3	2	0	3	1	0

Books and Pamphlets Received.—The Transactions of the New Hampshire Medical Society—(Seventy-first Anniversary).—Communications of the Rhode Island Medical Society, for 1862.

Deaths in Boston for the week ending Saturday noon, August 23d, 85. Males, 45—Females, 40.—Accidents, 2—inflammation of the bowels, 1—disease of the brain, 3—bronchitis, 2—cholera infantum, 15—cholera morbus, 2—consumption, 14—convulsions, 3—cyanosis, 1—debility, 1—diarrhœa, 7—dropsy of the brain, 1—dysentery, 3—scarlet fever, 3—typhoid fever, 1—gastritis, 1—hæmorrhage, 1—disease of the heart, 3—infantile disease, 1—intemperance, 2—disease of the liver, 1—congestion of the lungs, 2—inflammation of the lungs, 2—marasmus, 4—old age, 2—paralysis, 1—premature birth, 1—unknown, 4—whooping cough, 1.

Under 5 years of age, 42—between 5 and 20 years, 4—between 20 and 40 years, 25—between 40 and 60 years, 4—above 60 years, 10. Born in the United States, 56—Ireland, 26—other places, 3.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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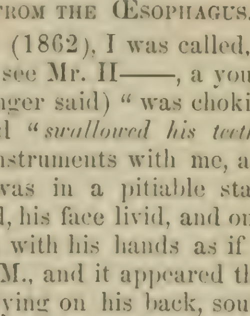
CASES IN COUNTRY PRACTICE.

By John Ellis Blake, M.D., of Middletown, Conn.

[Communicated for the Boston Medical and Surgical Journal.]

No. VII.—Artificial Teeth Removed from the Œsophagus.

In the early part of the present summer (1862), I was called, in great haste, a short distance from town to see Mr. H——, a young man about 30 years of age, who (the messenger said) "was choking to death;" adding that he believed he had "*swallowed his teeth.*" Somewhat astonished at this, I took a few instruments with me, and was soon at the house. The young man was in a pitiable state, laboring for breath, his body bowed forward, his face livid, and once in a while clutching at his throat and mouth with his hands as if in extreme distress. It was now about 2, A.M., and it appeared that about an hour and a quarter before, whilst lying on his back, sound asleep, he had suddenly felt a suffocating sensation, and immediately after an involuntary effort at swallowing taking place, he found that his false teeth, of which he wore three ("front uppers") upon a plate, had gone down his throat; and, what was worse, a moment afterwards an injudicious attempt to pull them up brought on another spasmodic attempt to swallow, which carried them far out of reach, and into a position where their pressure on the trachea caused extreme dyspnœa.



I give here a wood cut of the plate of the teeth, by which some idea of the difficulties to which its peculiar shape gave rise may be obtained. It will be seen that this is a plate of three teeth, bent upon itself at each side, and each curved portion fashioned into double prongs, so as to clasp about the natural teeth, and hold the set firmly in its place. The plate was of silver, and the edges of all the prongs quite thin and dangerously sharp. The position of these prongs and edges is such, that in a flexible tube, like the œsophagus, an attempt to move it in either direction would be liable to cause a point to penetrate the tissues, and hold everything fast.

I found, after several futile attempts to withdraw it (in which I got a good hold upon it with a pair of very long, slender, curved forceps), that it was firmly lodged in the œsophagus at a point between the top of the sternum and the thyroid cartilage. I presume it lay with its long axis (if I may so express it) across the tube, and so produced the greater dyspnœa. It evidently could only be removed by the use of considerable force; and putting aside the operation of removing it by incision from without as inadmissible, I proposed to try to get it *up* rather than to force it *down*, which, although it could be more easily done, would not be wholly free from danger, and promised by no means so satisfactory a result.

Keeping the blades of the long curved forceps before-mentioned firmly closed, they were passed down by the side and below the plate until I could use them as a lever, then by a sort of prying and lifting process, turning the forceps strongly with the right hand, assisted by the pressure of the left hand on the neck, I forced the teeth up quite a distance. Although this was done as gently as was consistent with the force required, it was a cruel trial for the half suffocated patient. The tissues it seemed could almost be *heard* to tear, and I have no doubt, from the sensation conveyed through the instrument to my hand, and from the symptoms of the patient after the operation, that the œsophagus was somewhat lacerated. As no delay could be allowed in the passage of the teeth over the chink of the glottis, the forceps were laid aside, and as soon as the patient took breath, having a small hand, I was enabled to force the left one far enough into the fauces to engage the tip of the middle finger under the plate, and then by a quick pull to bring it out; to my own satisfaction, and I hardly need add to the great joy of the patient. Some small vessels, large enough to bleed smartly for a few moments, were opened; but the whole amount of hæmorrhage was trivial.

The operation, of which I have spoken so much at length, was accomplished in a few moments after I reached the house; but I think the case worthy of relation (although I do not know it to be an *isolated* one), as a warning to those who, having false teeth, are so careless as to go to sleep without removing them from the mouth, or in some way making it certain to have them secure. A case, I remember, occurred in the practice of my preceptor and friend, Dr. J. Mason Warren, of Boston, in which, during etherization, a set of teeth fell back into the fauces, for a time threatening to suffocate the patient, and from which dangerous condition she was only rescued by extreme promptitude of action on the part of that surgeon.

I would remark here, that the natural, involuntary action of the œsophagus, by which the food, after passing a certain point, is carried on towards the stomach, is a great source of embarrassment in cases like the one I have related; for the irritation created by the foreign body causes not only a constant spasmodic effort on the part of the patient to swallow, but puts the involuntary action in play, which is directly antagonistic to the efforts of the surgeon.

My patient suffered for some days from swelling and inflammation of the throat, and had great pain in swallowing, but was not long ill, and is now entirely well.

ON CATARACT.

By Dr. Max Tetzer, with Additions by Prof. Arlt.

[From the Allgemeine Wiener Medizinische Zeitung, Nos. 1, 2, 3, 4, of the year 1862. Translated for the Boston Medical and Surgical Journal.]

In extracting, we have to remove from the eye the whole of the contents of the capsule by a clean-cut incision of the cornea, without wounding, especially without bruising, the iris, and without penetrating the vitreous humor. The opening made in the anterior capsule must be such that, after the lens has passed out, it may retract from the range of the pupil towards the zonula Zinnii.

The first requisite for the removal of the whole of the lens is the thorough ripeness of the cataract; it is ripe when the lens is opaque throughout up to the capsule, when no part of the peripheral layers remains transparent, and the period of swelling has passed. When the opacity reaches the cortical layer on the anterior surface and becomes general, the fibres of the lens swell up and press the anterior capsule forwards, so that the lens becomes thicker from before backwards. At this time we can generally recognize the spoke-like arrangement of the fibres; and the radiating stripes of varying breadth often present, with a favorable light, a pearly lustre, being situated with regard to the capsule somewhat as the coating of a looking-glass is to the glass. Subsequently gradual breaking-down and partial absorption, at least of the superficial layers, takes place; the lens diminishes in size; its antero posterior diameter may become even sensibly shorter than before the beginning of the cataract.

It is only the mature cataract (in the sense explained above) that can be easily and entirely removed from the eye, when the other conditions are satisfied. In the case of a lens whose peripheral layers are more or less transparent, there always remain behind more or less considerable pieces, even if all the other conditions for removal are favorable. Likewise, if we operate at the period when the lens is swollen (as explained above), portions almost always peal off. When pieces of considerable size remain behind in the eye, they are, as we shall presently show, by far the most frequent cause of an imperfect or even an entirely unsuccessful result; and the removal of remnants, although opaque, is often effected only with the greatest danger, and frequently is quite impossible.

As the period from the beginning to the completion of the clouding of the lens varies in different cases, we cannot in general judge as to the completeness of a cataract from the length of time it has existed in a given case. Yet this item is always worth considering, and especially in double cataract is it sometimes important, as we generally find in spontaneous and especially in senile cataract that the cloudiness begins later in one eye than in the other, and progresses at an equal rate in each. Neither can the degree of loss of vision be considered decisive as to the fitness of the cataract for operation, even supposing no complications, and the eye to be otherwise sound. For cataracts which are quite ripe allow more light to reach the retina, and diffuse it less than those which are incomplete; especially when the cloudy portion is more homogeneous, when a part of the opaque cortical substance has become absorbed, and the antero-posterior diameter has diminished. Patients with such a cataract sometimes state that they can see better with the eye than they could a short time previously. Sometimes eyes with complete cataracts can count fingers if within six inches, the light coming from behind, while eyes with the cortical substance still partially transparent show only quantitative sensibility to light.

The surest method of determining whether the cloudiness has become total, is the examination of the lens by daylight, and by the so-called oblique or focal illumination with artificial light. It is often necessary to dilate the pupil with a few drops of sulphate of atropine (half a grain to a drachm of water). The light of a lamp concentrated by a convex glass of two or three inches focal distance being thrown upon the lens, we can easily see whether transparent fibres are present between and behind, or in front of the opaque ones. If we bear in mind that when the pupil is only moderately dilated, the pupillary edge of the iris rests immediately on the anterior capsule, and further that in advanced age the nucleus of the lens is more or less yellow (the color may be compared to that of catgut), while, on the contrary, the cortical fibres always appear white (gray or bluish), then we have the necessary data for estimating the position and thickness of the cloudy cortical fibres. The more clearly the yellow nucleus shows through, the fewer are the cloudy cortical fibres that lie in front of it; either because many of the cortical fibres still remain transparent, or because a large part of them are already absorbed. To determine which of the two is the case, we examine the anterior chamber.

In judging of the ripeness of the cataract it is very important to consider the position of the iris and the size of the anterior chamber; that is, its size in one eye as compared with that of the other; since its absolute size is very variable, being large in myopic, and small in hypermetropic and presbyopic eyes. Supposing both eyes before the commencement of the cataracts to have equally large anterior chambers, if the one lens is still sound or only slightly cloudy, then the size of the corresponding anterior chamber can serve as a safe measure to determine whether that of the cataract-eye has become greater or smaller. Its diminution indicates swelling, its increase shrinking (partial absorption) of the cortical substance.

To recognize small differences in the size of the chamber, imagine a cataract-knife passed through the edge of the cornea, or a plane passed through the greatest circle of the cornea (its edge); we must, however, then look at the eyes from the front in the direction of the axis of vision, and not from the side. For in the latter case the pupillary edge, if only slightly advanced, appears much too far forward. The pupil always seems to be a little larger and nearer us than it really is, as the cornea and aqueous lie in front of it. If we lay a plano-convex glass on the printed lines of a book, and look in the direction of the axis of the glass upon the lines underneath, the letters seem enlarged and nearer, but still the lines are pretty straight, and the middle portion of them is hardly perceptibly displaced. If we look from the side, the line appears curved, the convexity being forward towards the glass. So our judgment of the position of the pupillary edge of the iris is nearest the truth when we look into the eye nearly or quite in the direction of the axis of vision.

When the cataract is ripe, the lens lies more or less loose in the capsule, as a ripe fruit in the shell. But when the lens is only partially cloudy, the transparent layers of fibres adhere just as firmly to the capsule as in a perfectly sound state of the lens. By the process of swelling and the consequent changes of the cortical substance, the normal connection is more or less loosened and destroyed. When once the height of the swelling is passed, i. e. the serous soaking and swelling of the cortical fibres, then two changes may occur: either there begins fatty degeneration and liquefaction of the cortical substance, formation of an emulsive fluid, in which the nucleus, becoming gradually smaller and smaller, always sinks to the bottom, until it finally quite disappears, or the fluid elements are simply absorbed, the layer of cortical substance becomes thinner, especially in the middle portion in the position of the pupil, and the lens presenting all the characters of a hard cataract becomes shaped somewhat like a placenta, but with the edge rather sharp than round.

For our purpose it is at present superfluous to describe the subsequent course of these changes. Cataracts whose cortical substance has undergone fatty decomposition, are called by Arlt overripe. They may sometimes occasion great difficulties to the operator.

[To be continued.]

OIL OF SAVIN AS A REMEDY FOR INTERMITTENT, ETC.

Mr. Editor.—Shortly after the battle of Fair Oaks, or Seven Pines, I was prostrated by an attack of fever, supervening upon a bowel complaint which had troubled me for a few weeks, though it had not prevented my attending to duty as usual. I had, however, been considerably weakened by the latter complaint, and the accession of fever, together with a dangerous increase of a pulmonary complaint which has been gradually gaining upon me for the last three years, convinced me that it would be some weeks before I could resume my duties, if I ever did. I therefore resigned my position in the 3d Michigan Infantry, and returned home; since which time I have been confined to bed, without any perceptible gain in strength or weight, being only able to sit up an hour or two at a time.

To-day I was reading Taylor's Medical Jurisprudence, 4th edition, and found, under the article Savin, a case where a medical man was transported for having administered the oil in doses of 14 drops to a pregnant female, although it would appear that he was ignorant of her pregnant condition. I say it would appear that he was ignorant of the fact, for the female's evidence went to prove such ignorance, and his conviction of a criminal intention rested mostly upon moral evidence. The female had told him that she had an affection of the heart and liver, and he did just as any one would, he decided that *she* did not know what was the matter; and finding the catamenia suppressed, he probably attributed the whole difficulty to that, and prescribed the oil in powerful emmenagogue doses. On the whole, I think he was very unjustly dealt with, and the evidence of one of the medical witnesses—that such doses were never prescribed except for purposes of abortion—savors of that malicious spirit of envy which, to the disgrace of the profession, is so often found to take the place of fraternal sympathy.

It occurred to me that I would put on record a case which may help to neutralize such evidence hereafter. It is as follows:—An acquaintance of mine, whose son had been for some months troubled with frequently recurring attacks of intermittent fever, called at my office, one evening, and said that for a few weeks past the intermittent had not returned; that he was told that 40 drops of the oil of savin, given with a little sugar, was a specific for recurring ague; and he had accordingly given him 40 drops on a lump of sugar, since which time the ague had not returned. I expressed my surprise at the extent of the dose, and inquired as to the effects. He said he gave it as the chill came on, and he observed "no effects more than if he had taken a glass of any hot stuff." I asked if he had known of others having taken such doses with impunity. He said he had not, but that the person who recommended the remedy to him told him that *he* had known of several cured by it. It would appear, therefore, that the oil may be used in three or four times the quantity that medical men generally have heretofore considered it safe.

As to its abortifacient powers, I know but little from observation, although it is purchased in considerable quantities here, or rather in a great many small quantities (the amount being generally from one to two ounces), by both married and single females. One female, who applied to me for assistance, stated that she knew of its having been effectual in 10 drop doses, repeated every three hours, for two days; but that double the quantity had failed in her case.

Trusting that this little item may be of use, I give it, with my best wishes. GEO. B. WILLSON.

Port Huron, Michigan, August 25, 1862.

ON THE EMPLOYMENT OF A HEATED THERMOMETER FOR THE MEASUREMENT OF THE COOLING POWER OF THE AIR ON THE HUMAN BODY.

By JONATHAN OSBORNE, M.D., KING'S PROFESSOR OF MATERIA MEDICA, ETC., ETC.

PHYSICIANS often anxiously examine meteorological tables in order to ascertain the localities best suited to their patients. There is no want of such tables; and many of them constructed with great care and elaboration. Within late years we have not only observations thermometric and barometric, with their highest and lowest daily readings, but those of the wet and dry bulb-thermometer, in order to supply us with data for estimating the amount of moisture in the air; and, in the more extensive establishments, the anemometers and rain gauges appear to complete the entire collection of facts respecting the state of the atmosphere, according to our present mode of observing.

When, however, we wish to learn from such tables the state of localities with reference to their actual influence on the human body, we encounter a deficiency which all have experienced, and which is often attempted to be supplied by an appeal to popular observation, and by resorting to the sensation of hot and cold, possessed in common by the most barbarous as well as the most civilized classes of mankind. Thus, in some localities with a high thermometric temperature, we are informed that invalids complain of the cold: and in others, where the thermometer proclaims it to be cold, the inhabitants find it to be warm. Vague and inaccurate as these popular statements must be, yet, without them, no just estimate of climate can be formed. Within a short period a highly respectable physician brought forward his thermometric observations as an irrefragable testimony of the mild and genial climate of a certain place on the western coast of Ireland, where even the trees are stunted in their growth by the constant wind blowing from the Atlantic. One such example of this kind is surely a sufficient proof that up to the present time we are more dependent on our feelings of cold and heat, imperfect though they may be, than on any meteorological observations hitherto made, and that they are required to enable us to form a judgment as to the cooling or heating qualities of the air.

Several years ago, under a deep conviction that our thermometric observations, as hitherto conducted, were inadequate to instruct the physician in what he most desires to know respecting climate, I brought before the British Association, at their first meeting in

Dublin, a proposal for using a heated thermometer. This was accompanied by several illustrations of the behavior of such an instrument under various circumstances, in order to prove its applicability to every condition of climate or locality. The eminent persons at that time assembled in the section expressed their approbation, and three committees were appointed, viz., one in London, one in Edinburgh, and one in Dublin, to investigate the subject. However, as I did not feel called upon to bestow more labor on a subject which ought to have no more interest for me than for others, it has continued to be neglected up to the present time. Some years later, when the meteorological survey of Ireland was undertaken, under the auspices of the Royal Irish Academy, I suggested that observations with the heated thermometer should be included among those to be made at the various stations. It was recommended by some members of the committee, whose names, were I to mention them, would at once enlist the confidence of the scientific world in its favor; but it was considered by the majority to require too much trouble on the part of the observers, and was consequently abandoned.

Since its first introduction I have never yet been shaken in my opinion of its value; and have subsequently made some changes in order to render its use more intelligible, and, at the same time, to facilitate its application to various practical purposes. The great object has been to render the all-important agencies of heat, and cold, and climate subject to actual measurement, so that they may be entirely, and without any exception or reserve, dealt with like any of the other appliances of medical science.

The principle on which the use of the heated thermometer depends is easy to be understood. The bulb being heated up to 90° Far. represents the heat of the surface of the human body; when in this state it is exposed to a cooler medium—whether in air, or water, or a mixture of both, as moist air—and allowed to cool to 80° Far.; the time required for cooling these 10 degrees represents (inversely) the cooling power exerted by that medium, whatever it may be, or however applied. This cooling power is derived from other agencies besides difference of temperature—as from radiation of the neighboring objects, conducting power of the surrounding medium, and more especially from currents causing various proportions of it to be brought into contact with the heated body within a given time. Now these agencies have their combined results exhibited in the degree of rapidity with which the cooling is effected. Placed, as we are, in a medium, with few exceptions, always below 80°, we are constantly undergoing a process of cooling. In our ordinary clothing we feel just comfortable at 56° in-doors; but when exposed to a current of air, even at the same temperature, we feel cold in proportion to the force of the current, or in proportion to the conducting power imparted to it by increased moisture. Both these are agencies of which the thermometer takes no notice. Its indications are furnished by the contractions or expansions of a fluid, whether mercury or spirit, which always maintains the same temperature as the surrounding medium, and accommodates itself to these changes by altering its own density in the same proportion. The living animal, on the contrary, as always maintaining a temperature of its own, and as constantly resisting cooling agencies, is not to be considered as passively submitting, like the fluid of the thermometer in its ordinary state. When heated to 90° Far.—that being nearly the temperature of the surface of our bodies—in the rapidity with which it is cooled, depending on the intensity of the cooling influences, it furnishes an index to their combined effect. It does not depict the force of any one of the cooling influences taken singly, but gives the sum of them all acting simultaneously.

This accomplishes the great desideratum of rendering the thermometer practically useful. As the instrument thus heated becomes the representative of the heat at the surface of the human body; and the rapidity with which it is cooled represents the energy of the cooling forces; I venture to propose that, under this adaptation, it should be called the *animal-heat thermometer*. The less the number of seconds in which it cools, the greater is the cooling power, and *vice versa*; so that the greatest warmth is expressed by the greatest number of seconds required for cooling down a given number of degrees. The thermometer for this purpose is to be graduated only from 90° to 80° Far. At each observation it must be heated up to 90°. This may be done by immersing the bulb in warm water; after which it must be wiped. Or it may be heated in its tin case over a spirit lamp. Another mode of heating it, which appears very unscientific, but is very convenient when out of doors, is to hold the bulb of the thermometer close to the neck of the observer, inside his shirt collar, for two or three minutes, when it may always be heated to the required temperature, or even a few degrees above it.

For the *animal-heat thermometer*, the number of seconds during which it cools these 10° forms the scale of measurement. The number one commences when the instrument is plunged into water at, or nearly at, freezing point; and for the other end of the scale, when in calm air, at temperatures approaching 80° Far., the number of seconds will amount to several hundred. At these high temperatures it would be most convenient, and even become necessary, to take only the five degrees from 90° to 85° Far.; and in this case the number of seconds would be much less than half, from the rapidity of cooling being in a greatly increased ratio to the difference of temperature.

A very important consideration is the choice of thermometers. For this purpose they should be without any kind of frame, except a hook at the top for convenience of suspension. I prefer the spirit thermometer as being more easily seen, and as less rapid in its descent than mercury, and the cylindrical bulb as being less liable to be broken than the spherical bulb. In order to obtain uniformity in the action of different thermometers, to be used by observers in different localities, it will be necessary to place a number of them, previously graduated at 80° and 90°, in cold water and cold air of certain assigned temperatures, and to select from these such as cool down at what shall be fixed as a standard rate.

For example, the thermometer now used by me cools down the 10° in water at rest, temperature 45° Far., in 6″; and in water at rest, temperature 65° Far., in 12″. In water the cooling is too rapid to secure accuracy in counting the seconds, and therefore must not be depended on. The rate of cooling in air may be taken by placing the thermometer in the middle of a cylindrical bottle of certain dimensions, say two inches in diameter, so as to guard it against currents. If the thermometer which I now use be taken as a standard, its rate of cooling from 90° to 80°, within this cylinder, is as follows:—At 40° it cooled in 122″; at 60° it cooled in 186″. If the instrument was not enclosed within the cylinder the results would be very different and very uncertain, from the effect of currents of air, even in the most sheltered apartments, as will be evident from experiments to be mentioned hereafter.

For counting the seconds a second watch may be used; but as it requires some practice to keep the eye both on the thermometer and the dial at the same time, and especially at the moment of stopping, the easiest mode is to use a string pendulum vibrating half seconds. This is portable; and the rod or ring to which it is attached may be suspended any where within view of the observer, due care being taken that it shall not produce a current of air so as to affect the bulb of the thermometer.

The following observations are intended to illustrate the facts exhibited by the heated thermometer:—

First.—*It shows the conducting power of air or water, respecting which the ordinary thermometer is absolutely silent.*

The temperature of an apartment warmed with fire and gas was 54° Far.; in it the *animal-heat thermometer* cooled from 90° to 80° Far. in 94″. The same heated thermometer, in water of same temperature, cooled the same amount in 8″. Thus showing that water at 84° Far. is nearly 12 times as cold as the air at the same temperature—a fact conformable with our sensations on taking a cold bath of the same temperature as the air, but of which the ordinary thermometer takes no notice.

In a closed room, temperature 40° Far., it cooled in 74″. In the same room, same temperature, the bulb loosely covered with a piece of damp woollen cloth, it cooled in 36″. Thus showing the effect of damp clothes, even in the house, to be as 2 to 1. This proportion would, no doubt, be greatly augmented out of doors, and by exposure to a breeze.

Second.—*It shows the cooling effects of currents in the surrounding media of air or water.*

In water at rest, temperature 70° Far., it cooled in 24″; but when agitated in the same, in 15″. In this simple experiment we see the real limit to swimming. Great as are the muscular achievements in which some men excel their fellows, none have ever been able to swim beyond a certain distance—such as that across the Hellespont—because the application of fresh surfaces of water, even of the ordinary temperature, cools the body beyond its powers of supplying heat. Here we have the cooling as increased by progression compared with our remaining stationary in the water in the proportion of 100″ to 60″, which would be much greater at a lower temperature.

In a room, temperature 57°, the *animal-heat thermometer* cooled in 115″. When blown on with a bellows, in the same room, it cooled in 16″. It is needless to say that the thermometer, in its ordinary application, gives no note of this difference; the wind blown from the bellows having the same temperature as the air of the apartment, and yet the cold is nearly as 100 to 14. This cooling effect of currents is illustrated by the punkah used in the East, and by the ordinary fan. Even in a room, with all the windows and doors shut, there are cooling effects of the internal currents to be measured by this instrument. Thus, the animal-heat thermometer, in a closed apartment, temperature 60°, cooled in 131″. Placed in the same apartment, in a cylindrical glass jar about two inches in diameter, it cooled in 157″; showing the warmth in the one case to that in the other as 83 to 100—of which the thermometer gives no indication.

Third.—*It shows the effects of wind, that most important element of climate, and which is entirely unheeded by the ordinary thermometer.*

Exposed to the open air, temperature 61°, it cooled in 45″. Exposed to the same air, but protected by the glass cylinder, it cooled in 149″; showing the warmth experienced in the one case to be to that in the other as 30 to 100; and yet in our best thermometric accounts of climates this difference is unnoticed, as if it did not exist.

I have learned from a lady, once resident in St. Petersburgh, that during the great severity of winter, when the thermometer is at many degrees below zero, the drivers of public vehicles are bound to be at their stands; but if there is a wind, even to a small degree, they may stay at home, it having been ascertained that dangerous and even fatal effects resulted from such exposure. Similar observations are recorded in the journals of our arctic voyagers.

This cooling effect of the wind, which makes itself to be felt even when blowing at a moderate temperature, has not hitherto been attempted to be estimated—and it is improbable that it will ever be accomplished in any other way than that now proposed. Even with respect to the anemometer, supposing that it could be rendered applicable to this purpose, yet difficulties meet us *in limine*. Mr. Glaisher (Report on Meteorology, 1847) says that "we can speak with no confidence as to the average strength of the wind, no two observers having estimated the value upon the same scale."

Fourth.—*It shows the refrigerating effect of air admitted into apartments from open windows.*

In a room without a fire, temperature 44°, it cooled in 72″. In the same room, within a foot of the window open a few inches, the night being calm, and the external temperature being 34° Far., it cooled in 32″. In this observation the night was remarkably calm, and yet the cooling effect produced was more than two to one, although the difference of temperature, according to the ordinary thermometer, was only that between 34 and 44.

On another night, the internal temperature being 51° and the external 45°, *the animal-heat thermometer*, in the same apartment, near the closed window, cooled in 100″; but when a small portion of the window was open, so as to admit a blast from without blowing in that direction, it cooled in 33″; that is, the warmth which was as 100 suddenly became as 33, a ratio which would be greatly increased if the apartment had been at a high temperature; and it is in such cases that windows are most frequently opened for the admission of air.[*]

Fifth.—*It shows to what degree the heat derived from an open fireplace is accompanied by a cooling process from the current of air rushing towards the fire.*

In front of a small screen opposite the fire the thermometer stood at 61° Far., the *animal-heat thermometer* cooled in 123″. Behind the same screen the thermometer stood at 54°, the *animal heat thermometer* cooled in 79″. Now, in an apartment of the same temperature, the *animal-heat thermometer*, not near the fire, cooled in 100″. This shows, that in the case of a man sitting opposite the fire, warm as his shins may be, the calves of his legs are not only not warmed, but are exposed to a cold above that of an ordinary apartment of the same temperature in the proportion of 100 to 79.

Sixth.—*It shows the cold and heat of climates as actually felt by human beings.*

The tables which I have kept to compare the *animal-heat thermometer* with the ordinary thermometer, as a means of measuring cold, prove the latter to represent only one out of several agencies engaged: hence, while sometimes a certain conformity between them is observable, yet the *animal-heat thermometer* takes a much wider range, shows a greater sensibility, and always has this distinctive peculiarity, that it represents the temperature as judged of by the feelings of the observer. This conformity between the results of the *animal heat thermometer* and our feelings is confirmed no less on taking averages than in individual observations. Thus, on comparing two tables—one of 20 days' observations, taken in September, outside a window with a north aspect, but in some degree sheltered from that wind, and the other table of 24 days' observations, taken inside the apartment, which was always without a fire, the heat of the outside was to that of the inside, according to the ordinary thermometer, as 90 to 100, but according to the *animal-heat thermometer*, as 54 to 100. Now, that this latter number expresses the truth must be evident to any one who has ever enjoyed the shelter of a house as contrasted with exposure to the open air.

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[*] The cold air thus applied becomes indeed "*the arrow that flyeth by day*," and signalizes its visit not so much by present inconvenience as by those various inflammatory and often fatal disorders resulting from it, which are so well known to the medical practitioner. In a long corridor at Sir Patrick Dun's Hospital, formerly left exposed to a violent current of air from open doors at the end of it, and felt to be inclement and dangerous even by those most reckless of cold, I believe it could be proved that to stop in it for a stated number of hours would be attended with more danger than to be present for the same space of time in any of the great battles fought in Europe. In none of these have the killed and wounded amounted to more than one-fourth of the armies engaged; a portion inferior to that of the fatal and dangerous diseases certain to be produced by the blast in that corridor during the same number of hours. The agency of cold as a cause of disease is apparent in the tables of mortality during the months of winter as compared with those of summer. Even during the latter season the same agency is in active operation. From an estimate which I made of the patients, in summer, at Sir P. Dun's, most of them chronic and all serious cases, above one half were to be distinctly referred to cold variously applied, but in the greatest number to currents of air.

When we find in Professor Dove's isothermic lines that in the month of January the temperature of the centre of Ireland is the same as that of Montpellier or Marseilles, we see a statement so contrary to the experience of living men and women as to proclaim loudly the want of some other means for ascertaining the effects of climates besides those hitherto in use. It is under the conviction that this mode of observation supplies the defect, that it is submitted to the medical profession as most immediately suited for their purposes.

The apparatus is so simple, the method of using it so easy, and its results so exactly accordant with the effects produced on the sensible surface of the human body, that by it the one instrument seems to present us with an epitome of all that we want to know from all the instruments now used in meteorology: hence, then, long as this proposal has been neglected, I cannot refrain from attributing it to the imperfect manner in which it has been brought forward; and I still hope that, sooner or later, it may attract the notice of those who shall have the opportunities of testing its utility and practical importance.—*Dublin Quar. Jour. of Med. Science.*

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, SEPTEMBER 4, 1862.

We stated in our last, on high official authority, that the Fellows of the Massachusetts Medical Society are, by a clause in their Charter which we copied, exempt from enrolment for military duty. We have since been informed that the statement is incorrect, the clause having been set aside by the Supreme Judicial Court in 1812. The question is not likely at present to be one of any great practical importance, as the prospect is that the new levies will be filled without resorting to a draft. As a question of patriotism we do not fear that the members of the medical profession will be behind the rest of the community in any position where their services may be needed by our country. They have already done an incalculable amount of work, and have shown themselves ready to go forward as volunteers, whenever a sudden emergency, like that which at this moment stirs the community to its very centre, calls for their services in aid of our overtasked brethren in the field. Massachusetts has just sent some of the most prominent members of the profession to Virginia, in answer to the call of the Government, and the number who offered their services was larger than was asked for. The following physicians and surgeons have volunteered their services. As the Surgeon-General had only orders to send twenty, whereas some forty offered, the rest were obliged to go on their own responsibility :—

Dr. George H. Gay, John Whitten assistant, Drs. Henry G. Clark, C. H. Stedman with his son as assistant, J. H. Dix, H. I. Bowditch and assistant, J. S. Flint, C. E. Buckingham, G. F. Bigelow, D. McB. Thaxter, J. H. Blake, W. H. Paige, A. Ruppaner, S. H. Carney, H. L. Shaw, R. J. P. Goodwin, and J. Green and assistant, of Boston; Drs. H. A. Martin, J. Waldock, B. F. King, J. G. Arnold, and W. S. Coffin, of Roxbury; Drs. Anson P. Hooker of East Cambridge, L. B. Morse of Watertown, J. H. Warren of Dorchester, W. G. Breck and Alfred Lambert of Springfield: L. S. Davis, P. W. Hartley, W. G. Bennett and assistant, of Fall River: Drs. Child, O. E. Brewster, P. L. Miller, P. H. Manning, A. M. Smith, E. V N. Fisher and Cady, of Pittsfield: Drs. Haddock of Lynn, Aiken of Dedham, Francis of Brookline, and P. P. Ingalls.

WE published last year, at the request of a correspondent, the most important items in the fee table of the Boston Medical Association. Since then we have met with several local fee lists in various American Medical Journals, among them the following for Cincinnati, which we take from the *Cincinnati Medical and Surgical News*. The fee list is introduced by a series of resolutions setting forth the necessity of increasing the rate of charge which has been the standard since 1843, when the expenses of living were much less than at the present time, &c., of which resolutions we print the last :—

"*Resolved*, That while for the purpose of securing such remuneration, promoting uniformity so far as practicable, and thus avoiding troublesome litigation, we pledge ourselves to be governed by the following fee bill in our charges to those who are able to pay; we will, nevertheless (as we have ever done), exercise clemency to those less favored by Providence, and will give our time and strength willingly and cheerfully to the suffering poor, without a wish for compensation.

"For a single visit or advice in ordinary cases, where no further attendance is required	$2,00 to 5,00
Each ordinary visit, maximum charge,	2,00
An extra charge to parts of the city remote from the residence or office of the Physician	
Visit to country in addition to regular charge, per mile	1,00
Special visit in city at time appointed by patient or friends	3,00
Night visit after 10 o'clock	5,00
With extra charge for distance, per mile	2,00
First consultation visit	5,00 to 10,00
With addition for distance, per mile	1,00
Subsequent consultation	2,00 to 5,00
Consultation at night	10,00 to 15,00
With mileage for country at the rate per mile	1,00

After the first consultation, if the consulting physician attends regularly at every visit of the attending physician, each should charge	2,00
Visit to Newport or Covington	3,00 to 5,00
" " " at night	6,00 to 10,00
" " " in consultation	8,00 to 12,00
" " " in consultation at night	12,00 to 15,00
Obstetrical services in natural labor, with ordinary detention	25,00
Difficult or protracted labor, according to the detention, danger, and responsibility involved	30,00 to 100,00
Each necessary visit after confinement	2,00
Written opinion or advice	5,00 to 25,00
Office advice	1,00 to 10,00
Certificate for Life Insurance	5,00
Venesection at office	2,00 to 3,00
Vaccination, including visit	3,00 to 5,00
Where more than one member of a family is vaccinated at same time, additional for each	1,00
Subsequent visit for inspection	2,00
Introduction of catheter or bougie, including visit	5,00
" " " at office	3,00
Visit to transient persons at hotel or steamboat	2,00 to 5,00
In obstetrical cases, if the accoucheur arrives after the birth of the child, and only delivers the placenta	10,00 to 15,00
Post-mortem, at request of friends	25,00

"The practitioner is expected to charge extra according to his discretion for unusual detention in any case, or for special services not above provided for, such as the use of the speculum, injecting uterus, physical examination of the chest, &c. In addition to which, we should exercise the privilege (which lawyers always claim) of demanding of our wealthy patients a special fee in very important cases, involving great risk of life to the patient, and corresponding solicitude and responsibility on the part of the medical attendant.

"The following resolutions were adopted:—

"*Resolved*, That it is the sense of this meeting that any physician may depart from the fee bill now adopted when he honestly believes that the circumstances of his patient require it.

"*Resolved*, That medical bills be considered as due when the services are rendered, and that it be obligatory to collect at least twice a year."

We copy the following useful article, by Dr. T. H. Walker, on Camp Diarrhœa, from the August number of the *Chicago Medical Journal*:—

"While I was engaged in the army before Corinth, diarrhœa prevailed as an epidemic throughout the camp, rendering the soldiers unfit for duty. I had a large number of patients under my charge, the majority of the cases being complicated with intermittent fever, producing great prostration and difficulty in treatment.

"The disease was usually ushered in by loss of appetite, irritability of the stomach, frequent vomiting, and intermittent pulse. The evacuations from the bowels were very frequent—often as many as thirty in the day.

"The treatment adopted by the Surgeons was very diverse and unsatisfactory.

"By close examination, I found that the alimentary canal was loaded with undissolved ingesta. There was pain arising from the irregular and violent peristaltic action, with soreness throughout the course of the large intestine, the frequent stools accompanied by distressing tenesmus. The secretion from the liver was irregular, often excessive and of an acrid nature. The skin was sallow and the tongue heavily furred; the pulse compressed; frequently headache and disturbed sleep.

"The causes are various, the hepatic disorder apparently often secondary to the intestinal irritation—apt to be provoked by excessive use of stimulants; exposure to cold and wet, especially in the fall months. In this case there is usually less pain, unless it passes into dysenteric diarrhœa from the presence of aggravating influences.

"The primary step in treatment is to remove the cause if it can be ascertained. My attention was first directed to the sanitary condition of the camp. I caused the tents to be rolled up, aired and dried, and all offensive matters to be removed; and both the invalided and healthy soldiers to be washed, and their clothes to be changed and cleansed as often as the conveniences of the camp would admit.

"Next I looked to the food and cookery department, which I found extremely faulty, soldiers often neglecting to more than half cook their rations, with resulting indigestion and passage of the crude mass into the intestines, exciting and intensifying the morbid action. There was not much choice in diet to be had in camp, but by proper attention to its preparation a great barrier to the return of health was surmounted. The means for making a nourishing and suitable soup are always at hand in camp; meat, beans, rice, and even potatoes, which, by the skill of any competent cook, can easily be made into a soup perfectly harmless and wholesome.

"So far as medication was concerned, I usually commenced my treatment by giving large doses of sulphate of magnesia to wash out the contents of the bowels. I then administered ipecac, opium, hydrarg. cum creta and quinine, the proportion of each varying with the peculiarities of each case. In the course of twenty-four hours the evacuations would assume a dark color, and convalescence rapidly ensue. The ipecac and opium were given in moderate doses. The hydrarg. cum creta appeared to act in the most salutary manner in cases where calomel would irritate excessively. The quinine, when there was intermittent complication, when given alone did not fail to aggravate the difficulty, but in the above combination had a most happy effect.

"Of eighty-eight cases under treatment at one time, the whole were reported fit for duty in seven days from the commencement of the treatment.

"The Brigade Surgeon, who visited the camps with reference to the presence of this scourge, was so strikingly impressed by the marked superiority of this treatment to that relied upon by others, that he gave it cordial and high approval, and recommended it to the other Surgeons. Previously, too much reliance had been placed upon calomel, opium and astringents, and, worst of all, upon alcoholic stimulants: but since then sulphate of magnesia takes the first rank. One hundred and fifty barrels of it were ordered for Gen. Grant's division by the Medical Director, to be used as above indicated.

"The writer, in concluding this hasty sketch of the method relied upon by him in opposing this 'scourge of the camp,' begs leave to say that while he does not claim any novelty in it, or new discovery, yet the application never has, to his knowledge, previously received the high place in the confidence and practice of the Army Surgeons which the experience above recorded showed it ought to receive."

At a meeting of the Hampden District Medical Society, held in Springfield on the 19th inst., the following resolutions were unanimously adopted:—

Whereas, We are called upon to record the death of Dr. E. G. Pierce of Holyoke, President of this Society, who died at Fortress Monroe, a surgeon in the army of his country, therefore—

Resolved, That in the removal of Dr. Pierce, we have lost an accomplished physician and gentleman, and gained additional honors for our noble profession.

Resolved, That, as a mark of respect for the deceased, no successor shall be chosen to the chair, so unexpectedly vacated, until the next annual meeting of this Society.

Resolved, That we deeply sympathize with the only daughter and other relatives of the deceased, in this most sudden and afflictive dispensation of Providence.

Resolved, That these resolutions be forwarded to the BOSTON MEDICAL AND SURGICAL JOURNAL, and the *Springfield Republican*, for publication.

JOHN WITTER, *Sec. pro tem.*

Springfield, Aug. 30, 1862.

By a General Order respecting the drafting of the militia, issued on the 1st inst., by the Governor of this Commonwealth, the following gentlemen are appointed as Surgeons to whom applications are to be made for certificates of disability for military service.

For the County of Barnstable.—Drs. Geo. Shove, of Yarmouthport; John M. Smith, Barnstable; Jonathan Leonard, Sandwich; Franklin Dodge, Harwich.

Berkshire.—Drs. Timothy Childs, of Pittsfield; Henry L. Sabin, Williamstown; Clarkson T. Collins, Great Barrington; Clifford C. Holcomb, Lee.

Bristol.—Drs. Lyman Bartlett and William A. Gordon, of New Bedford; Robert T. Davis, Fall River; Thaddeus Phelps, Attleborough; Henry B. Hubbard, Taunton.

Dukes.—Drs. Daniel A. Cleaveland and William H. Luce, of Tisbury.

Essex.—Drs. Benjamin Cox, Jr., of Salem; Henry C. Perkins, Newburyport; Herman E. Davidson, Gloucester; Joseph Kittredge, North Andover; George Osborne, South Danvers; Kendall Flint, Haverhill; Stephen Huse, Methuen; Edward Newhall, Lynn.

Franklin.—Drs. J. W. D. Osgood, of Greenfield; Edward Barton, Orange; Charles M. Duncan, Shelburne.

Hampden.—Drs. Nathan Adams and William G. Breck, of Springfield; Jas. H. Waterman, Westfield; H. S Lucas, Chester Factories.

Hampshire.—Drs. Daniel Thompson, of Northampton; William M. Trow, Williamsburg; D. W. Miner, Ware; Benj. F. Smith, Amherst.

Middlesex.—Drs. Josiah Bartlett, of Concord (President of the Massachusetts Medical Society); William Mason, Charlestown; Morrill Wyman, Cambridge; Anson Hooker, East Cambridge; Gilman Kimball and Nathan Allen, Lowell; Henry Bigelow, Newton; S. G. Burnap, Holliston; R. S. Warren, Waltham; Wm. Ingalls, Winchester.

Nantucket.—Dr. Elisha P. Fearing, of Nantucket.

Norfolk.—Drs. Appleton Howe, of Weymouth; Henry Bartlett, Roxbury; Benjamin Cushing, Dorchester; A. LeBaron Monroe, Medway; Harvey E. Clapp, Wrentham; Ebenezer P. Burgess, Dedham.

Plymouth.—Drs. Alexander Jackson, of Plymouth; Asa Millett, North Bridgewater; William E. Sparrow, Mattapoisett; R. T. P. Fiske, Hingham.

Suffolk.—Drs. Edward Reynolds, John C. Dalton, Oliver Wendell Holmes, George H. Gay, Robert W. Hooper, Samuel L. Abbot, of Boston; Samuel G. Howe, South Boston; W. H. Thorndike, East Boston; W. G. Wheeler, Chelsea.

Worcester.—Drs. Joseph Sargent and Henry Clarke, of Worcester; Alfred Hitchcock, Fitchburg; John G. Metcalf, Mendon; Wm. D. Peck, Sterling; Allen C. Fay, Milford.

ARTIFICIAL LIMBS FOR MAIMED SOLDIERS.—We alluded some time since to the appropriation of a sum of money by Congress for the purchase of artificial limbs for maimed soldiers. A Commission, consisting of several of the most eminent surgeons in the country, is about to be convened in New York by Surgeon-General Hammond, in order to decide upon the best method of applying this fund. They will select the limbs best adapted to the purpose, and make such recommendations as seem advisable after due deliberation. We again express the hope, that medically-educated mechanical surgeons will alone be found worthy of the patronage of Government.—*Am. Med. Times.*

DISEASED CATTLE.—In a report just issued by the Registrar-General of Scotland, he calls the attention of the public to the fact that ever since pleuro-pneumonia broke out among the cattle of this country a few years since, the returns of mortality have shown that carbuncle, a disease formerly very rare, has become comparatively common. Dr. Livingstone observed in Africa that if the flesh of animals who die from pleuro-pneumonia is eaten it causes carbuncle in the persons who eat it, and that neither boiling nor roasting the flesh, nor cooking it in any way, gets rid of the poison. It is true that if such cattle are ever sold for food they are killed before they fall victims to the disease naturally, but still the poison is in them. The report suggests as a subject for inquiry whether the new form of disease, which we term diphtheria, may not be partially induced by the use of diseased flesh.—*Medical Times and Gazette.*

RESULTS OF THE REVACCINATION OF THE PRUSSIAN ARMY IN 1861.—During 1861 there were 64,985 soldiers vaccinated or revaccinated, and of this number, 53,979 individuals exhibited plain marks of prior vaccination, and 7204 indistinct marks, while in 3802 no traces were visible. The vaccination now performed was regular in its course in 41,494; irregular in 7481: unsuccessful in 16,009; total 64,985. The unsuccessful cases vaccinated again, furnished 5658 additional examples of successful vaccination, making 47,152 or 72 per cent. of those vaccinated. Among the soldiers who had been now or on former occasions successfully revaccinated, there appeared during the year four cases of varicella and ten of varioloid, but no case of variola. In the entire army there appeared during 1861, 56 cases of this class of diseases, viz., 7 of varicella, 45 of varioloid, and 4 of true variola. Of these, 25 cases (2 of varicella, 21 of varioloid, and 2 of variola) occurred in soldiers who had not been revaccinated; 17 (viz., 1 of varicella, 14 of varioloid, and 2 of variola) in soldiers revaccinated without result; and 14 (viz., 4 of varicella, and 10 of variola) in cases in which revaccination had succeeded. The great bulk of these cases were of a mild or even trivial character: but 4 of them ended fatally,—viz., a case of variola occurring in a soldier who had not been revaccinated; 1 of varioloid, revaccination having been performed without success; together with a case of varioloid and another of variola occurring in recruits who had not been revaccinated.—*Medical Times and Gazette*, from *Berlin Med. Zeit.* No. 35.

Case of Double Uterus, with Simultaneous Gestation.—At a late meeting of the Obstetrical Society of London, Dr. Graily Hewitt made the following communication:—"Mr. Grace was summoned by his father to see a patient in labor for the fourth time, aged twenty-six. Twice previously there had been premature birth; the third child did not live. When first seen by Mr. Grace, labor had been going on for fifteen hours: the waters had escaped. On examination, a hand was found presenting in the vagina, and the os about half dilated: but lying posterior to this, another os was discovered, with the head of a child presenting. Septum between the two half an inch thick, and extending up as far as could be reached. The anterior os was dilated, the child turned, and delivery effected. The placenta then followed. The child was dead, and apparently seven months old. The posterior os was next dilated, turning effected, and a live child extracted, which survived only a few hours. The placenta of the second child was expelled without difficulty. Both children were females, equal in development. No flooding or other complication interfered with the perfect recovery of the patient."

Dr. Graily Hewitt observed that the case, for the particulars of which the Society was indebted to Mr. Grace, was a very unusual and interesting one. In the elaborate work of Kussmaul on the Malformations of the Uterus, which contained a collection of cases of various kinds, there were only two specifically recorded precisely similar to that observed by the author of the paper. The case of Mr. Grace resembled other cases of double uterus recorded by Kussmaul in respect of the feebleness of the uterine pains said to have been observed. Abortion and premature labor seemed especially liable to occur in cases of double uterus, and this fact was corroborated by the case then before the Society.—*London Lancet.*

On Poisoning by Phosphorus.—Dr. Lewin has recently directed the attention of the Medical Profession to the curious fact that there is an evident connection between poisoning by phosphorus and fatty degeneration of the liver. He was led to this discovery by finding in the published reports of cases of poisoning by phosphorus, in which autopsies had been made, statements regarding an alteration of the liver. He then experimented upon dogs and rabbits, and found that we may, by administering small doses of phosphorus which do not immediately kill, cause fatty degeneration of the liver, with destruction of the acini, that is, a condition closely analogous to that which is found to exist in cases of acute atrophy of the liver. He also discovered that poisoning by phosphorus produced a peculiar affection of the kidneys, and rendered the urine albuminous as long as life continued.

These physiological experiments were soon afterwards shown to be perfectly correct by a case of poisoning by phosphorus which occurred in the clinique of Professor Frerichs, in the Charité Hospital. A servant girl committed suicide by eating the tops of a thousand lucifers; when brought into the Hospital she suffered from icterus and enlargement of the liver; the urine contained biliphæin and albumen. She died shortly afterwards without having had much pain and no symptoms of a disturbance of the nervous system having been observable. The post-mortem examination, which was performed with the greatest care, showed that the blood was in a state of dissolution, it had the color of cherry juice, was very thin, and no coagula, and scarcely any globules were found in it. The skin and the mucous membranes were suffused with blood, the liver was greatly enlarged, and its edges blunt. On being examined by the microscope, the acini appeared to be filled with fat to bursting.—*For. Corres. Med. Times and Gazette.*

We understand that Prof. Horace Green is engaged, and has been during his leisure hours, for a number of years, in preparing a somewhat elaborate work on the *Nature and Treatment of Diseases of the Lungs and of their Appendages.* Having given, as many of our readers are doubtless aware, more than twenty years of his professional life almost exclusively to the study and treatment of this class of diseases (over ten thousand cases of this nature we have learned having in that time come under his observation), Dr. Green should possess a large and valuable amount of information on this important class of affections. A most important contribution to current knowledge may therefore be expected to emanate from his ready pen, and we would advise all desirous of adding a book on this subject to their libraries, to wait for the publication of the work here announced.—*American Medical Monthly.*

The Medical Examining Board for contract surgeons in New York and Philadelphia has been adjourned by order of the Surgeon-General.

General Saxton has made contracts with Drs. Hawks, Bundy, Wakefield, and McClintock, to attend to the health of the Africans in Gen. Hunter's department.

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, August 30th, 1862.

DEATHS.

	Males.	*Females*	*Total*
Deaths during the week,	37	58	95
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	52.0	50.0	102.0
Average corrected to increased population,	..	..	114.55
Deaths of persons above 90,	..	0	0

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
6	21	1	6	1	0	5	2	1

Received,—Causes and Cure of Diseases of the Feet: with Practical Suggestions as to their Clothing. By C. H. Cleaveland, M.D. Illustrated. Cincinnati: Bradley & Webb. Pamphlet, 8vo. Pp. 111.——Lindsay & Blakiston's Physician's Visiting List for the year 1863.

Deaths in Boston for the week ending Saturday noon, August 30th, 95. Males, 37—Females, 58.—Abscess, 1—accident, 1—apoplexy, 1—inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 1—inflammation of the brain, 1—burns, 1—cancer, 1—cholera infantum, 21—consumption, 6—convulsions, 5—croup, 1—debility, 1—diarrhœa, 6—diphtheria, 1—dropsy, 2—dropsy of the brain, 4—drowned, 1—dysentery, 5—epilepsy, 1—erysipelas, 1—scarlet fever, 6—typhoid fever, 2—gastritis, 1—disease of the heart, 1—icterus, 1—intemperance, 2—inflammation of the lungs, 1—marasmus, 6—measles, 3—old age, 1—paralysis, 1—puerperal disease, 1—stomatitis, 1—syphilis, 1—unknown, 3.

Under 5 years of age, 64—between 5 and 20 years, 1—between 20 and 40 years, 8—between 40 and 60 years, 12—above 60 years, 10. Born in the United States, 78—Ireland, 12—other places, 5.

THE

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OPERATIONS AFTER AN ENGAGEMENT—AMPUTATIONS.

[Translated from M. Saurel's "Traité de la Chirurgie Navale," by THOMAS WELSH, M.D., Acting Assistant Surgeon U. S. Navy. Continued from page 412, Vol. lxvi.]

THE conditions are not the same with the lower extremities. Larger bones, more powerful muscles and fewer elements of vitality, produce more serious wounds in that region, and if their length, form and solidity are too much compromised, they cannot perform their functions.

Indications of treatment of injuries of the lower limbs, clearly drawn up, would be most desirable, but on this point there is the greatest disagreement. It is, however, generally acknowledged that injuries of bones of the foot rarely demand amputation. Those of the first tarsal row are rarely affected without involving the tibio-tarsal articulation, and hence the danger resulting from them.

In fractures of the leg, without serious complications and only of one bone, the preservation of the limb can be attempted. "In this case," Baudens says, "the proportion of success is equal to that of failure, whilst in similar circumstances of fractures of the upper extremity there are 10 cases of success to 1 of failure. It is proper, then, to attempt a cure of fractures of the leg without resorting to secondary amputations, and almost always we ought to make the effort of preserving the upper extremities."

Military surgeons, especially Larrey and Ribes, have laid down as a rule that all fractures of the thigh, the result of gunshot wounds, demand amputation.* Baudens is not less decided. Of all fractures by gunshot wounds, he says, fracture of the thigh is undoubtedly the one which most imperatively demands amputation. All fractures of this bone require immediate amputation. Surgeons of the present age, unacquainted with the battle-field, have protested particularly against this decision, and the experience of the last wars has justified them.

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* This rule has been very frequently violated by Larrey himself and the military surgeons of that epoch. Neither were the surgeons of that age so unanimous on this point as is generally supposed. Percy and Laurent, in the article *Gunshot Wounds*, in the "Dictionary of Medical Sciences," Vol. 13, p. [illegible], say, "When a ball has produced great destruction of the thigh and broken the bone into splinters, it is much better to make large incisions and to extract all the loose splinters than resort immediately to amputation. A shortened limb will be much more useful than a wooden leg the most ingeniously made."

The statistics of M. Legonest, in the work we have already quoted many times, prove, with all the eloquence of great numbers, that this principle is much too absolute. It appears, indeed, from the interesting researches of Dr. Chenu, that out of 1664 amputations performed during the campaign in the East, for fractures of the thigh, resulting from gunshot wounds, only 123 cases of recovery could be set down—7.04 in 100; whilst in 337 fractures where amputation was not performed, there were 117 recoveries. If we are guided by these figures, amputation should be absolutely dispensed with, since by refraining there would be five times the chance of curing and preserving the limbs entire; but the first cannot serve us as data, since it represents an unexampled mortality.

The wounded in the Crimea had to contend with the rigor of the climate; epidemics, such as cholera, typhus, scurvy, and hospital gangrene; hurried evacuation of places, and marches under most deplorable circumstances—everything, in a word, which could compromise the success of operations the most skilfully performed. There was needed such a combination of circumstances to explain the proportion of 92.06 deaths in 100, but they only give more value to so remarkable a number of recoveries obtained in the cases of non-interference, for those pernicious influences were common to all the wounded. It will be a parallel to statistics of amputations performed in the hospitals for recent traumatic lesions. It is true that limbs which have been spared were evidently less injured, and constitute only one-fifth of the whole number; it is equally probable these results would have been different if the statistics had been drawn from 1664 other fractures; but in summing up, it is nevertheless proved that recoveries take place very frequently without amputation, and it is important to define the cases in which it is necessary to perform it, and those in which it is not. It is difficult to point out positive indications.

The following are the rules which seemed to prevail in the army of Italy.* Fractures of the thigh, when we thought we ought to reject or postpone amputation, justified our attempts at conservative surgery under the following circumstances:—

1st. Simple fractures of the thigh, or those very little comminuted, with more or less irregular surfaces of coaptation, but without decided deviation of the extremities from the axis of the bone, as is observed when there is splintering of the diaphyses.

2d. When extraction of small and loose splinters can be done immediately.

3d. Absence of grave complications, of hæmorrhage, and foreign bodies buried in the midst of soft parts.

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* A. Bertherand, Italian Campaign of 1859, Medico-Chirurgical Letters, Paris, 1860, p. 90.

4th. Possibility of carrying the wounded to a very short distance from the scene of the fight, to apply promptly the local and general means of treatment demanded, without any fear of disturbance afterwards.

Lastly, immediate amputation of the hip joint is still rejected by the majority of surgeons of the present time. Messrs. Sedillot, Thénot, Valette, Scrive, Guyon, Larrey, Legonest, proscribe it, because it has always been followed by death. M. Jules Roux expresses his opinion quite positively. "Disarticulation of the thigh performed immediately after a gunshot wound of the upper part of the thigh, is at present," he says, "a condemned operation." *

In adding the 30 cases collected by M. Legonest to the 29 from the already quoted statistics of Dr. Chenu, and subtracting the 9 communicated by M. Thomas from the first of these authors, which probably appeared in both the analyses, there were 50 deaths after 50 operations. Naval surgeons have not been more fortunate; in 5 primitive disarticulations there were 5 deaths. If the wound is inevitably mortal, we ought not to have to reproach ourselves for a useless operation, by which the death of the patient is hastened.

In the Crimean campaign, M. Legonest quoted 24 cases of fracture of the upper third of the thigh produced by gunshot wound, cured without amputation. M. J. Roux counted 21 among the army of Italy, which were sent to him at the Hospital of St. Mandrier. We had an opportunity to observe one at Brest, in the service of M. Duval, as the result of the affair of Bomarsund.

It is, then, well demonstrated that patients can recover from such wounds, and cannot survive the operation, and non-amputation should be the rule.

Gunshot wounds of the large articulations demand generally the sacrifice of the limb. Any wound penetrating their cavity, even when it is of little extent and made by a cutting instrument, is a grave lesion. The danger is greater, when it is made by a projectile from a cannon. The splinters detached and buried in the articular surfaces act there as foreign bodies; owing to which, and the inevitable access of air, the most violent traumatic arthritis can be prevented only by amputation in the majority of cases. However, when the ball has not touched the cartilaginous surfaces, and when it only perforates cleanly the spongy portion of the bone without causing very considerable destruction, Baudens thinks we ought to refrain from an operation. This restriction, according to him, is not applicable to penetrating wounds of the joints.

When the head of the bone entering into the joint has been touched, it always leaves long fragments in the capsule of the articulation, and resection or amputation is clearly indicated. We have seen that at the hip this last resource is not applicable. We find

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* Disarticulation of the thigh, from observations made in 1859, upon sailors of the Navy, and the wounded of the Army of Italy. A memoir read at the Academy of Sciences, Session 16th, April, 1860, by Dr. Jules Roux, Surgeon of the Navy.

in these cases, besides, the same differences of gravity between the wounds of the thoracic extremity and those of the pelvic member. In the first, the limb is frequently preserved by resecting the extremity of the bone the most compromised. This operation is sometimes necessary at the shoulder; generally with happy results. At the elbow, wrist, and hand, amputation, with proper care, can at almost always be avoided. It is not the same with the lower extremities. Percy considered it indispensable, whenever the articulation of the knee or ankle was opened by a ball; and at the present day we are strongly inclined to amputate the thigh at the inferior third, and the leg above the malleoli.[*] As to the wounds of the small joints of the foot, they can almost always be cured by continual irrigations.

In connection with these principles borrowed from French military Surgeons, we will present those which guide the practice of our German confrères. Doctor Stromeyer has compiled them in the most explicit manner.[†] He divides the indications of immediate amputation on the field of battle, into general and special.

The general indications are:—1st, When a large limb has been carried away by a large projectile. 2d, When the simultaneous lesion of nerves and vessels takes away the possibility of preserving the vitality of a limb. 3d, When there are considerable lesions of nerves or vessels. 4th, When, the skin remaining uninjured, the bones and soft parts have been bruised by a bullet.

The special indications of amputation of the upper limbs comprise:—1st, The simultaneous lesion of vessels and nerves. 2d, Fractures of bones, with tearing of the main artery. 3d, Very extensive loss of substance of the soft parts. 4th, Comminuted fractures of the elbow, with lesion of the brachial artery. 5th, Fractures of the wrist, when this region has been crossed in its largest diameter.

For the lower extremities, M. Stromeyer considers amputation demanded under the following circumstances:—1st, The complete loss of a part of the leg, carried away by a bullet. 2d, Irreparable loss of substance. 3d, Fracture and subcutaneous attrition of the soft parts of the leg. 4th, Lesion of the crural artery or the popliteal at the same time as the accompanying vein. 5th, Fracture of the femur, with danger of the vessels being wounded by the fragments. 6th, Fracture of the femur in its greatest extent. 7th, Fracture of the femur and simultaneous lesion of the sciatic nerve. 8th, Balls going through the knee joint, and injuring more or less the osseous articular surfaces. 9th, Penetration of a projectile, wounding the capsular ligament of the knee. 10th, Fracture of the tibia below the knee, going into the articulation. 11th, Extensive fracture of both bones of the leg. 12th, Extensive fracture of the tibia alone. 13th, Fracture of the tibio-astragalan articulation (tibia or astragalus only) in its greatest diameter. 14th, The breaking off, by a projectile, of a great part of the external malleolus. 15th, Shattering of the anterior part of the foot by a large projectile.

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[*] I think it useless to insist on the superiority of amputation above the malleoli, compared to that at the seat of election. On this point all naval surgeons are agreed, and M. Marcellin Duval particularly has developed it with great force in his teachings and writings.

[†] Principles of Military Surgery, by Dr. Stromeyer, Surgeon-General of Hanover, and the Army of Schleswig Holstein. 2 vols. 8vo. Hanover, 1855.

The importance of this question justifies the long details into which we have entered. We have tried to expose, as faithfully as possible, the opinions of our confrères of the army. Whatever value we may attach to them, we cannot regulate our practice in all cases by them, because the conditions in which we are placed are different. The battle-field has cruel necessities. After a battle, the number of wounded exceeds the limit of all care and arrangements the most extensively prepared. It is impossible to give every one the attention he demands, and watch over the progress of his treatment. Thus operations, which could be avoided under more favorable circumstances (and these occur on board men of war), are obliged to be performed. Naval surgeons can therefore attempt conservative surgery more than their confrères of the army, and break through some of the rules which they have established. We propose shortly to furnish the proof of this.

It is true we have supposed the ship to be in good condition after a combat. If bad weather comes up, and there is necessity of closing the ports, and if closure of the hatches prevent the free ventilation of those parts of the ship filled with the wounded, it will not be long before dampness, absence of light and impurity of air will cause the most unhappy complications and compromise the success of the best efforts. This happened in the Crimea in the winter of 1854–55, and will happen wherever the wounded are subjected to the combined influence of huddling together, dampness and cold. Overcrowding is the most formidable obstacle which hygienic measures have to contend with. The danger increases when there is crowding of the sick, and is at its height when the wounded are included. Then exhalations from large suppurating and frequently gangrenous wounds are added to the ordinary causes of deterioration of the air. On shore, in the wards of our hospitals, in spite of the best prophylactic measures, we are not insured against purulent infection, and cases appear now and then. These fearful complications are much more to be expected on board of crowded vessels, and to these ship fever may be superadded. For the production of this it is not necessary that there should be a prolonged crowding of the wounded. It broke out during the campaign of the East in many vessels engaged in transporting the sick to Constantinople, notwithstanding the rapidity of the voyage. We shall find many more terrible examples of it by referring to more distant periods. The fear that these formidable scourges may appear, ought always to be present to the minds of surgeons, and they should adopt all precautions to prevent them.

[THE following article on the Military Hospital at Portsmouth, R. I., which we extract from the *Monthly Journal of the Unitarian Association*, speaks the honest truth in such a manly way, and is so interesting withal, that we commend it to the special consideration of our readers. It is time that the whole country knew to what outrages too many of our brave soldiers are constantly exposed. —ED.]

THE HOSPITAL AT PORTSMOUTH, R. I.

THOSE who are interested in the operations and management of our military hospitals will find it instructive and profitable to visit the large establishment of this kind which has recently been fixed at Portsmouth, in Rhode Island; and is intended by the Government to be permanent during the war. Access to the grounds is easy by the steamer "Perry," from Providence, which stops at the Portsmouth landing, on the way to and from Newport; or by carriage from Newport, from which town the hospital is only seven miles distant. "Passes" of admission may be obtained from the proper military and civil authorities—most conveniently from the Mayors of Providence, Newport, or Fall River. All the repulsive features of the management of this hospital, which, in the first weeks of its existence, amazed, irritated, and disgusted every sympathizing visitor, have now disappeared. The sick and wounded are no longer left to lie, without food and without heed, upon the bare ground; but have comfortable beds, sufficient clothing, and suitable food. The delicacies sent from the cities and from the homes of the wealthy are now distributed to those for whom they were intended, and are not sold to the sick by unlicensed hucksters. The present senior surgeon is neither profane nor intemperate, and does not insult the patients whom fortune has given to his charge. The praise of Dr. Carpenter is on the lips of all; and the testimony to his attention, skill, kindness, and disinterestedness, is spontaneous and universal. All agree that the hospital is regenerated since he has been allowed to have charge of it; and many express emphatically their conviction, that they owe their lives to him. No man can go through the wards with Dr. Carpenter, and watch the countenances of the sick as they greet him, without feeling sure that he is the right man in the right place; one who will not connive at frauds or tolerate abuses, and whose sympathies are all with the unfortunate.

In the first days of the hospital, there was much complaint that the rebel prisoners had most of the help, while our own sick and wounded were neglected. Gentlemen visiting the ground were surprised to find, upon the bodies of these rebels, articles of clothing which they had sent for Union sufferers, and to receive from these unlawful owners an insolent answer when the mistake was suggested. It was noticed that some well-dressed ladies conspicuously lavished their attentions upon the foes whose wounds and captivity had not in the least mitigated their enmity to the Government, or their determination to fight against loyal men. Some of the stories of these exclusive attentions to rebels were doubtless exaggerated. Jealousy may have magnified acts of common humanity into a show of "secession" sympathy. However that may be, such discrimination among the patients is now quite at an end. All now are treated alike, friend or foe; all are sick men, to be cared for according to their need, without any special indulgence. The hospital is a prison, only so far as the occupants are restrained from leaving it. It is not a prison in the sense that it subjects any to penalties, or takes any account of the former acts or circumstances of the patients. It has the same supervision of the loyal sick as of the rebel, and guards against desertions as much as against escapes. There is no special sentinel set for the barrack where the rebels are. Indeed, this is hardly necessary as a military precaution; since the number of prisoners is comparatively small—not more than thirty in all—and they are watched by twenty times that number of Union convalescents, who would at once give the alarm should the prisoners attempt to escape. Most of them are disabled by wounds. Some of them are civil, agreeable, and intelligent men; and all testify that they have been cared for more kindly than they could have expected, and that they have met with fewer hardships in the hands of their captors than in their own camp-life.

The number of Union patients in the hospital, at the beginning, was about seventeen hundred. Many of these have already been discharged, some to other hospitals, and some to their regiments. But the calamities of the war will continue to reinforce the hospital, and it is expected to furnish places for at least two thousand patients. The tents in which the patients were placed at first have gradually given way to comfortable barracks of wood, each large enough to receive two hundred patients; and so situated, that all have free ventilation, and neither interferes with the others. In the buildings where the most severe cases are placed, the beds are arranged in line on either side, with a wide passage-way between, as in the wards of the city hospitals. In the buildings devoted to convalescents who are able to walk and to climb, the beds are arranged in tiers, on the sides and in the centre, as in the cabins of a steamboat. Everything about the buildings and tents, so far as the eye can judge, is clean, orderly, and comfortable. The sick here have the benefit of the same air, and, to some extent, of the same scenery, that pleasure-seekers, both North and South, go from their homes to find at this season. In the warm days, the cool breeze from the sea breaks the force of the sun; and the cold north wind is softened by the hills which hide this retreat. Except for the difficulty of getting good and sufficient water, no better place for a hospital could be found in the Northern States.

Most of those who have been brought to the hospital, thus far, are from the army of the Potomac. Nearly every Northern State is represented, and every branch of the service—infantry, artillery, and cavalry. Comparatively few are wounded men—less than one tenth of the whole number. Most are suffering from diseases contracted by imprudence, bad air, exposure, hardship, and insufficient food. In some cases, and those the most painful, camp-life has only developed fatal diseases, the seeds of which were before in the system. The scene in this hospital shows what great responsibility rests on the physicians who examine volunteers for the war, and what a fearful wrong may be done by sending into the field men physically unfitted for the soldier's duty. Thousands of lives, which have been lost to no purpose in this war, might have been saved by competency and fidelity in the examining surgeons. This duty of medical examination is, we are compelled to believe, too much slighted even by men who are conscientious in their regular medical practice. No man who has any evident physical infirmity, whether of the lungs or the heart or the limbs, should be allowed, whatever his zeal may be, to become a soldier in our armies. A regiment that is swelled by such recruits is weakened, not strengthened. The sick hold back the well; and the nation is burdened by an army of incapables, who are no better than pensioners upon its bounty from the very day of their enlisting. A surprising number of those who are patients in the Portsmouth Hospital have been in no battle; and would never have been in the ranks, if the surgeons who were appointed to examine them had been skilful or faithful. Not a few have been received, as we have reason to believe, on the certificates of quacks, who are ready to vouch for the soundness of all who pay them liberally.

Another positive impression which a visit to such a hospital as this gives, is that very much of the sickness of the soldiers is owing to neglect and maltreatment on the part of the officers. There are very few sick men in the companies where the captain and the lieutenants are vigilant and sober; but, where the officers spend their leisure in physical indulgence, the men are apt to be attacked by severe disease. Where there is a drunken commander, there will be fever and jaundice and rheumatism and scurvy in the ranks. The two facts do not seem to have any necessary connection of cause and effect; yet it is not accident that they should be so frequent and general in their connection. The drunkenness of officers not only destroys that moral sense which best sustains an army, but disables the men physically. And, in our judgment, the governor is entitled to praise, who refuses absolutely to commission for military office any man who is known to be a "drinking" man; any man, even, who will not discourage the use of ardent spirit among the men of his command. It is a fatal delusion, that bad whiskey can make good soldiers; but a more fatal delusion, that leaders who poison themselves with bad whiskey will have sound men in their compa- The recruits who join the old regiments, will, if they are wise, to know the habits of the officers—of sergeants and corporals, as well as of commissioned officers—before they select the company which they will join. Above all things, let them avoid any regiment whose surgeons are drunkards. More than one instance has been told to us, by generals in command in this war, where the knife of a tipsy operator has rendered deadly the slight hurt of the enemy's bullet. It is a crime to intrust the lives of men to such a person. A profligate chaplain is bad enough—and there have been such in our army—but a profligate surgeon is worse; inasmuch as the harm which he may do cannot be remedied. Many are sent to die in the hospitals, because they were neglected in the camp, or wrongly treated by physicians who did not know how to take care of themselves.

The large hotel on the hospital ground is used chiefly for the residence and the offices of the attending surgeons and stewards, and as a place of deposit for the articles of necessity and comfort provided by the Sanitary Commission. An exact inventory of all these articles is taken as they are brought in—of their number, their description, and the place from which they come—and they are given out by the superintendents to such patients as most need them. No articles sent for gratuitous distribution are sold, and great care is taken to prevent injustice in the delivery. No delicacies are allowed to be given to the sick, except by the advice and order of those who know best what is fit for them. Of course, some will complain that the cakes and jellies and preserves which others receive do not fall to their share: but, in many cases, these would do positive injury; and instances are told, where recovery has been perilled and delayed by injudicious gifts in this kind. Casual lookers-on are not competent to allot these "creature comforts," more than to administer medicines; which, indeed, these things are, when brought into a hospital. It is an uncourteous breach of privilege for visitors to disturb the harmony and derange the treatment of the wards by giving articles of this kind to those who happen to enlist their sympathy. Even gifts sent to the patients directly from their own homes cannot safely be handed over to those who claim them, except at the discretion of the attending physician; and it is to be presumed that many nice articles, which fail to reach those to whom they are sent, are held back for good sanitary cause, and not embezzled, as friends may suspect.

In a large hospital, what is most needed is abundant means for amusement and recreation. Most of the patients are too feeble to walk about, except at short intervals; and many are confined wholly to their beds. Any pleasant reading which can be left with them is welcomed, and nothing in this kind is prohibited. Magazines, small books, tracts, newspapers—such comforts as these do more to aid convalescence than cloying or stimulating gifts to the palate. Even solid theological quarterlies are not rejected; and, if soiled pages are a test of faithful use, a recent issue of the "Christian Review" has been well circulated in one of the wards. Visitors, who wish to leave some token of their interest in the men with whom they converse, would do well to take with them a good supply of this light and interesting reading. Bibles they need not carry; since most who care for Bibles have them already. Paper and postage-stamps are also a very acceptable gift; since letter-writing is one of the best recreations of the hospital. A large part of the patients, when asked what they are in most need of, will mention "postage-stamps" as the first thing, and paper as the second. A couple of dollars spent in this commodity will go further than a bottle of sherry wine, good as that is in some cases. A gift of these articles is easily carried, and will be by all gratefully accepted.

And, even when no gift is carried, visitors to the hospital may do good and leave a pleasant influence by simply conversing with the patients; not passing on in dumb silence, as if they were going through an exhibition or performing a solemn duty, but stopping to tell and learn something with friends that they have come to see. There is nothing more annoying to sick men than to be "shown up" as a spectacle, or to read in the faces which gaze upon them a look merely of curiosity, of wonder, or of pity. Cheerful words; questions concerning their home, their former associates, their regiments, their future intentions and hopes; any thing which can bring the sick to forget for the time that they are invalids—these make a visit to the hospital good, both to those who go and to those who are there. One who cannot so cheerfully talk with the patients had better stay away: his presence among them will be an embarrassment and a nuisance. Almost as bad as this chilling silence is the formal and pietistic speech which some visitors bring, which seems to a nervous invalid like a death-warrant.

The hospital is not without its religious services. On the Sundays, ministers of the several denominations are invited to preach; and there is a chaplain at hand to attend to those funeral rites which are required almost daily. Already fifty graves are arranged side by side in the cemetery upon the grounds, rounded and sodded carefully; each marked by its head-board bearing the name and age and regiment of him whose body rests there. The graves of the rebels are not placed apart, but lie in line with those of the loyal soldiers. By and by, this Portsmouth grave-yard will be one of the most interesting in New England, from the wide circle of its associations, and the varied histories which it suggests. Many of the bodies may be hereafter removed by friends; but it is probable that most will be left in their place, and that the memorial-mark of those removed will still be kept here. In future time, this spot, where the martyrs are buried, may become a place of pilgrimage, as sacred as Bunker Hill and Plymouth Rock, as the hill of Montmartre in Paris, or the Bunhill Fields in London.

Army Medical Intelligence.

Surgeon-General Dale. BATON ROUGE, LA., AUG. 18, 1862.

DEAR SIR.—It has occurred to me that an account of the bivouac for near five weeks of this regiment in the swamp opposite Vicksburg, Miss., may possess for you, at least, a melancholy interest, as exhibiting how quickly, and with how little result of value, the effective strength of a body of men may be destroyed by a disregard of facts familiar as A B C to the merest tyro in medicine.

June 16th, 1862, the 30th regiment of Massachusetts volunteers embarked at Baton Rouge, La., with a total strength, rank and file, of eight hundred and seventeen (817) men. Not only were all the sick left behind, but as a detachment was to remain in charge of the regimental property, and the State House, which was occupied as quarters, I selected, in addition to all unfit for duty that day, about forty men for guard, who were not quite up to the standard requisite for the severest duty in the field. Thus culled of the feeble as well as the sick, the regiment was in splendid condition. As an evidence of this fact, it may be mentioned that on our way up the river, between 11, A.M., and 5, P.M., one of the hottest days of the season, we landed and made a march of from ten to twelve miles over a very dusty hard route, and although we had no ambulance or other means of conveyance, every man came in.

Arriving a few miles below Vicksburg, our regiment was immediately ordered to take a position about two miles up the levee and bivouac, for "per order" we were in "light marching order," without a single tent for sick or well. This order was, with the Colonel's usual promptness, executed at once under the burning sun of midday, the men, in marching from the river bank back to the levee, being obliged to wade through mud and water to their armpits. To a full understanding of the situation of the regiment, it should be remarked that the whole region for miles was "bottom" land or swamp, and had just emerged from an overflow of from six to ten feet in depth. On either hand of the levee (here four or five hundred yards back from the river bank), along whose sloping sides our men were laid without protection, was a dense wood with thick underbrush, the trees heavily festooned with the graceful but malaria-suggesting moss of the southern swamps; while the ground, covered thickly with a fresh deposit of vegetable matter, was passable only by wading and jumping from one "hummock" to another.

A portion of our men were at once set to work as pioneers to survey and clear the route of the proposed cut-off, not only working in the water and mud waist deep under a midsummer southern sun, but being obliged to bivouac without change of clothes, the heavy dews preventing their garments from drying, and causing the last part of the night to be very chilly. For two weeks the regiment occupied this position, their experience being varied only by five hours drill a day, two and one half hours of it being before breakfast, and in our regiment often at double quick, and by digging in the canal—quite a portion even spending the Fourth of July in this latter enthusiasm-damping manner. At the end of that time the regiment was ordered up on the line of the cut-off, the ground having become sufficiently dry to admit of a bivouac off the levee. The new position was in the wood, the underbrush having been grubbed up, and just alongside the canal from which large quantities of fresh soil, composed of vegetable deposit, was constantly being thrown out; thus adding another powerful disease-producing agency to those encountered at the other position. This state of things, drilling and digging included, remained unchanged until the final evacuation of the place, July 24th.

The immediate results of this long exposure, under the most unfavorable circumstances, to the influence of an intense and malignant malaria, may be briefly summed up thus. When we embarked for Baton Rouge, I had sick in hospital one hundred and ninety-seven (197), and sick in quarters two hundred more, while we had buried eighteen during our bivouac. During the fortnight that elapsed from our leaving the swamp to the reception of orders for all our sick and wounded to be sent to New Orleans (August 8th, three days after the battle), the sick list did not fall below four hundred, and rose as high as four hundred and fifty, the numbers being about equally divided between the hospital and quarters. The rate of mortality, also, continued much the same as during the last days of our stay at Vicksburg, the loss from sickness being ten during the first eight days of August. Still I could see a gradual improvement in the regiment as a whole, the symptoms of the new cases being less severe, less cases of congestive chills occurring; especially was I gratified to notice that the large list, more than two hundred in number, not actually on the sick report, but capable of only the lightest duty, was making a slow but sure gain of strength. This was better than I had anticipated, for saturated with malaria as our soldiers were, and exposed to the debilitating effects of an August in Louisiana, I did not dare to hope for much improvement until the cool weather of autumn.

The other regiments, three in number, engaged in this expedition, suffered very severely; but from the fact that they did not sleep on shore, being allowed to use the transport steamers as barracks, they escaped somewhat lighter. Nims's battery (2d Mass.) was situated more nearly like our regiment, and the result was similar. This corps was composed of the best material I ever saw collected into one company, the poorest man being more than an average soldier, and after a year's service had not lost a man, and had but one on the sick list. Yet in spite of all this, and in spite of the utmost efforts of Capt. Nims, than whom a more thoughtful, watchful commander never existed, I had on the hospital boat on our return forty-five (45), from this battery; and when, August 8th, the sick were sent to New Orleans, sixty-seven of these men went, while five of the splendid athletic fellows had died, making a total of seventy-two (72) from the one hundred and thirty-seven (137) with which the company arrived only a few weeks before in this department.

The general type of disease thus produced was that of a severe remittent fever, with a strong tendency to the congestive form of the disease, or congestive chills. Intermittent fever was less prevalent than remittent, my report for July showing three hundred and eighteen (318) cases of the latter to two hundred and six (206) of the former. Indeed, one of the first signs noticed after leaving the swamp as indicating that the malarious influence was becoming less powerful and malignant, was a proportional increase of fever and ague cases. The attack was in most cases ushered in by a most distressing sensation of sinking at the pit of the stomach, and complete prostration, often accompanied by nausea and vomiting. Headache and pains in the back and limbs, though common, were not complained of nearly as much as weakness—a feeling of complete debility and exhaustion. In many cases the sinking sensation at the stomach was accompanied by an insatiable thirst, and at the same time an ounce of water would operate instantly as an emetic. These cases were extremely difficult to manage, many of them drinking and vomiting incessantly, if they could get water, apparently without any power to control themselves, or any desire except to quench their raging thirst. Not rarely this irritability of the stomach interfered seriously with the treatment, especially in those debilitated cases in which stimulation and the constant administration of nourishment were indicated.

At first the larger portion of the cases did not exhibit any symptoms of serious derangement of the normal action of the liver; but the longer we lay exposed to the miasmatic influence, the more frequent such symptoms became, until about the time we left, and since, almost every case presented prominent signs of bilious disturbance. Quite a number of the fatal cases exhibited a very decided yellowness of the skin and tissues generally, resembling very much the appearances noticed in several cases of yellow fever I had an opportunity of observing some years since at the Quarantine Hospital, Boston. Nothing, however, approximating to black vomit in appearance was exhibited by any of the cases, much to my gratification, for had there been, it would probably have been difficult to convince the men that the "yellow Jack" their secesh neighbors had so often wished upon them had not really made his appearance. After seeing those cases, I can readily believe in the great difficulty, if not impossibility, of drawing a positive and definite line of demarcation in some instances between yellow and remittent fevers.

Most of the cases presented well-marked remissions, though close watching was required in some of the worst instances to detect the ebb and flow of the fever tide, and some after two or three days took on a decidedly typhoid type. In most of the very severe cases, and in some from the first and without anything to indicate an unusually severe attack, there was manifested a tendency to congestive chills. Indeed this feature gave us the most solicitude, for often the person thus attacked would make no complaint, and it was only by constant watchfulness that treatment could be instituted in season to be of any avail. In this connection I would say that in the large majority of the well-marked cases of congestive chills I have observed in this region (about forty in number), there have been presented no signs of active congestion of any particular organ, but rather a condition of complete collapse from the overpowering violence of an exacerbation of the malarious disease, which had by its poison already weakened the brain and nervous system. There is indeed a deficiency of blood circulating in the surface and extremities, and an excess in the internal organs generally, but this is just the state observed in collapse from cholera, or other causes; and the patients often experience the same sensation of burning heat, while the surface is cold and clammy, as is observed in those suffering from cholera.

The treatment pursued was necessarily simple, for the remains of a U. S. three months supply of medicines for the field do not offer, during the last three weeks of the quarter, much opportunity for selection. The first lesson that I learned, was, that I could not make my doses too unirritating for reception and retention by the inflamed stomachs of my patients. Lime water added to medicine, drink, or food, or administered alone, often acted most beneficially in allaying the vomiting. Mustard externally proved invaluable, not only by often checking the most obstinate vomiting, but especially in restoring heat and circulation to the clammy cold surface and extremities in congestive chill. At first I often used in these cases friction with strong hot mustard water, but I soon became convinced that I got better results by applying immense poultices made from clear mustard, thus getting quicker and more powerful effects, and also avoiding the chilling influence of the exposure and evaporation, and the disturbance to the patient incident to the bathing. Capsicum I found very valuable as an addition to the quinine in all those cases where stimulation was indicated, and I was often, though not always, surprised, in cases accompanied by vomiting, to find that it seemed to allay rather than increase the nausea.

My stock of quinine getting very low, and communication with the source of supply failing, I treated most of the cases of intermittent fever occurring during the last two weeks of our stay, entirely with capsicum or nitric acid, and with good success too. It was rare for a man to shake the third time after taking four or five smart doses of a capsicum and nitric acid mixture during each intermission. In administering quinine, I became convinced that better results followed from three to five grain doses, than from larger ones less often repeated. Most of the remittent fever cases required during a remission at least ten grains to prevent a return of the fever, and very few more than fifteen grains. After the violence of the attack had been broken, from three to six grains daily were found quite as good in preventing a relapse, as a larger quantity.

Stimulants were found most beneficial in almost every case in which my limited supply would allow me to administer them. In the cases of congestive chill, rapid and strong stimulation seemed the only salvation, while during the long and tedious convalescence, a little whiskey or brandy, three or four times a day, would often produce at once a most gratifying improvement. Indeed, I came to consider blue mass, castor oil, mustard, quinine, and good whiskey in plenty, as the essentials in treating malarious disease, and with these alone I think one could make a good fight even in a Mississippi swamp.

In concluding this already too long letter, I will note, without intending to complain in the least, a few of the disadvantages under which we labored in our hospital work proper. At first our hospital was on board a transport steamer, which was in constant service steaming up and down the river after negroes to work on the cut-off—thus rendering it very hot and noisy for the sick. Then, when the rebel ram Arkansas came rushing through the upper fleet, I was ordered post haste on shore, in the hot sun, with my sick; then in an hour on board again, then in two hours on shore again, and in ox wagons (the expedition had not a single ambulance) four miles, in a thunder shower, to some negro huts at the upper end of the cut-off. Getting half moved, my teams failed me, and continued to do so, so that thereafter I had two hospitals three or four miles apart.

Hospital stores or furniture I had none—no beds or bedding, or clothing, or proper material for the diet of the sick. Indeed, one of the most arduous items of my labors was endeavoring to obtain something not injurious for my sick to eat; and the same remark would apply with but little modification to the whole period of my service with the regiment. My hospital fund was useless, for no one had anything to sell that the sick needed, the planters in the vicinity being almost in a state of starvation. The only way to get any material for broth or soup, four days out of five, was to ignore gaining a hospital fund, and the positive rules and regulations made and provided, and, if so lucky as to get an opportunity, to exchange salt provisions for fresh with any one, black or white. Or if that failed, as it not rarely did, the only other resource was to disregard the strict orders, with terrible penalties attached, against "all plundering or marauding." If "charges and specifications" of the kind indicated above were made out against a surgeon who at home was not thought to be given to "lifting," and the truth and the whole truth were to "out," I fear the most friendly court martial could only render, "guilty, but justifiable."

July 5th, the very energetic and efficient Assistant Surgeon of this Regiment, Dr. A. F. Holt, was detailed to take charge of the numerous sick amongst the twelve or fifteen hundred negroes engaged in digging the canal, thus depriving the Regiment of any right to his services until we left, though he voluntarily assisted me to the utmost of his time and strength, not engrossed by his peculiar charge. The fact that as large a number in proportion of the negroes were attacked, and in the same manner, as our soldiers, the circumstances of both being very similar, is worthy of notice, and in my opinion goes far to show that there is no such thing as getting acclimated so that malaria will lose any of its power. Indeed, my observation would rather incline me to the opinion that one is never so well fitted to resist the miasmatic poison as when first exposed to it; the longer he lives in the tainted air, the more his system gets impregnated with it, and the more readily he succumbs to a fresh exposure.

Thus deprived of a large portion of the valuable labors of Dr. Holt, with my hospital steward all the time on the sick list, and my ward master and apothecary at Baton Rouge, and with my sick scattered over three or four miles in two hospitals and in camp, I will not pretend that I did justice to the hundreds of cases that daily looked to me for diet and medicine for the restoration of health. I have no doubt that some of the poor fellows might have much sooner recovered, and others perhaps have now been alive who are sleeping their last sleep in the swamp that vanquished them, had the demands upon my exertions been more nearly proportioned to the utmost of my ability to answer. As it is, I can only say I did my duty as nearly as I could, and may a merciful God spare me from ever again seeing stalwart manhood, the pride and hope of the nation, so rapidly and utterly destroyed, without an opportunity to strike one blow for that Union for which they were all willing to die.

Very respectfully, your most obliged servant,

S. K. Towle,

Surgeon 30th Regt. Mass. Volunteers.

Aug. 19th.—P. S.—As I was yesterday a few minutes too late for the mail, I will add a word to-day. Our wounded are all at New Orleans, so I cannot write of their progress. I learn that Quarter-master Tenney has sailed for Boston. Some pieces of bone, and a bit of cloth that somehow escaped my search, had been discharged, but the wound was doing well. Lieut. How left only two days since for New Orleans. He has got on finely in gaining strength. When he was brought in, he was so weak, from loss of blood, that I think amputation would have been fatal. From the fact that the ball split, I hope and think his wound was made with a round ball, and if so, he stands considerable chance to save his leg. Amputation in his case would have to be very high up. Col. Dudley has been ordered to New Orleans, and it is expected that we all shall follow soon. Hard work in the trenches, and exposure at night, have prevented much gain in health since the battle.

In a previous letter Dr. Towle wrote:—

"Dr. Holt was detailed the first of July to attend the 1500 negroes on the cut-off, near Vicksburg, and was not relieved until we left (July 23d), so that he could assist me but little. In the mean time my sick list was constantly increasing, until, when we left, I had 197 in hospital and over 200 in quarters, which numbers have not been decreased since until now. The General Hospital at New Orleans I thought was hard, but it was not to be mentioned with the accursed 'De Soto Swamp' opposite Vicksburg, which almost destroyed this regiment. In fact, to-day we cannot turn out over 200 men capable of marching ten miles, and when we left here we had 750 or 800 A No. 1 men. For a fight here, we can muster, *perhaps*, 300 to 350. We had 260 in the fight. At least a hundred more can be counted on for a fight than for a parade.

"We have considerable scurvy in the Regiment—not as many fully developed cases, as scorbutic symptoms in connection with other difficulties. Anti scorbutics are hard to be obtained, as we are almost in a state of siege. If vegetables are growing within ten miles, however, our fellows will get them now, as they are out on picket and scouting duty, and I charge them to appropriate every green thing eatable they find."

To the Surgeon-General. WASHINGTON, Sept. 2, 1862.

DEAR SIR,—The majority of the gentlemen have just left for Fairfax, if they can get there, Alexandria at any rate. I am at the Cranch Hospital, which is in the E street Baptist Church. I was very much disappointed not to go with them, but Dr. Bowditch "put his foot down against it" on account of a very slight return of my old Ship Island trouble. I am very happy to know that I can be of service here. Wounded are continually being brought in; their wounds are dressed, and those who can be, are immediately sent to Philadelphia. We arrived here Monday evening in a pouring rain. Dr. Gay reported us; and in this connection let me say how much we are indebted to Dr. Gay for his efforts for our comfort from the time we left Boston to the present. He has been very busy, and has left nothing undone which he could possibly do for our convenience and comfort. I met Dr. Ellis yesterday; he has got to assist Dr. Brown. I had a few moments chat with Coale; he is at the Capitol. All kinds of rumors are afloat here; we have to wait for the New York papers before we get anything definite. There are hosts of surgeons here from Philadelphia and New York—more than they know what to do with, I am told.

Most truly yours, ANSON P. HOOKER.

MEDICAL MEN IN SCOTLAND.—On the authority of Dr. Dick, it is stated that there are 1560 medical men in Scotland, of whom probably not more than 300 are fellows of any Faculty. Of the 250 practising in Glasgow, not more than one half belong to either of the Faculties.—*Lancet.*

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, SEPTEMBER 11, 1862.

Lint as a Dressing for Wounds.—Ever since the beginning of the war, busy hands have been actively employed in pulling or scraping lint. Every lady or child who could do nothing else, has felt that in pulling to pieces old linen, and laying the threads carefully in bundles or diligently scraping it into a soft mass, they were at least doing a little which would add to the comfort of some poor soldier. Little children have devoted themselves to this work, and in some of the schools, during the past week, the pupils have been taken from their books, that their nimble fingers might help on the general work which it was understood could not be too rapidly hurried forward. It has from the first been a mystery to us where all the lint went to, or what could be done with it. It certainly is an article which at the present day is very little used in ordinary surgery. The popular idea probably is, that it is needed either for "stopping" wounds immediately after they are received, or in some way, not known to the unprofessional mind, in their subsequent treatment. Lint and wounds are indissolubly associated in the popular mind: and it is not easy to account for this association except that it has come down from the barbarous days of surgery, when the object would almost seem to have been to do all that was possible to prevent the healing of a wound, by stuffing it with foreign substances or stimulating it by the most irritating ones. We have made repeated inquiries what the surgeons could be doing with the lint which has gone to Washington in such quantities. The most we could learn was, that in certain cases it was employed to keep the orifice of a wound open where it was inclined to close, to allow the free escape of pus. Some of our surgeons who have been in Virginia, on temporary service, could find no other use for it than to employ it as a packing, in certain cases, between a broken limb and a splint—a purpose for which cotton batting or unmanufactured cotton, or any other soft substance, would answer equally well. It is very certain that where it has been ignorantly employed by surgeons who ought to have known better, it has in numerous instances, since the war began, been productive of the most serious and even fatal results. We may mention, in this connection, that in the Massachusetts General Hospital not more than a pound of lint is used in a year. It is sometimes employed temporarily to plug a recent wound where there is danger of hæmorrhage, but rarely for any other purpose. Used in this way it may be of some value in military service, but then it should be carried in the soldier's pocket, where we imagine it has not as yet found a place; and even in this case a bit of sponge, with a string attached if the wound is deep, would be much better. We also learn, on the most reliable authority, that in a military hospital in Baltimore, containing a thousand patients, during the past six months hardly a particle of scraped lint has been used, and pulled lint never. We see that some one in the daily papers offers to make lint in large quantities by machinery, using even cotton cloth for the purpose. Nothing could be much worse than this. We would mention, incidentally, that on the memorable Sunday, August 31st, when the

Surgeon-General of the U. S. Army telegraphed that the supply of lint in the market was nearly exhausted, a manufacturer here had five tons of it on hand, and actually offered a thousand pounds of it to the government gratuitously on that day.

We were much impressed by the statements of Dr. Sayre of Bellevue Hospital, New York, which we republished in our Journal of the 28th ult., on the great superiority of oakum to lint in dressing suppurating wounds. Employed as he recommends it, it becomes a poultice rather than a pad, the loose texture of the oakum favoring the free escape and absorption of pus.

We would say, then, to our kind-hearted ladies, who are most anxious to be doing something in aid of the cause which all have so much at heart, and whose unwearied exertions, during the whole period of this war, have been beyond all praise, that they will be much more likely to do good by making up bandages and articles of clothing suitable for hospital inmates, than by scraping or pulling lint. As a plug to stop bleeding, cotton would serve a better purpose, and as a dressing, wet compresses of cotton or linen cloth, poultices in some cases, spongiopiline, &c. The cloth which is now being so rapidly destroyed would be vastly more useful in the form of bandages, or to be torn up by the surgeons for compresses. We are glad to present such authority for our views as is contained in the following notice just issued by the Medical Commission of this State :—

"*Medical Commission of Massachusetts.* The opinion of the members of this Board having been frequently asked as to the value and importance of lint in the treatment of surgical cases, they beg leave to say that they are satisfied that there are other means that in most cases would be more useful, and in all equally so. They refer to old linen and cotton compresses, wet or dry, and soft sponges, which would, in almost if not in every instance, be found to answer all purposes likely to be accomplished by the use of lint.

GEORGE HAYWARD, *Chairman.*	J. MASON WARREN,
JOHN WARE,	S. CABOT, JR.,
S. D. TOWNSEND,	R. M. HODGES.

Boston, September 5, 1862.

We would call the attention of the reader to Dr. Davis's Institution for the treatment of diseases of the joints, advertised in to-day's Journal. As stated in the advertisement, Dr. D.'s mode of treating these diseases has been made known to the profession, in some of the Medical Journals, and, we believe, has met the approbation of those best qualified to judge in the matter. We perceive, by a notice in the *American Medical Times*, that Dr. Cutter, from Massachusetts, gave a description of Dr. Davis's splints at the late meeting of British Medical Association.

SURGEONS AND ASSISTANT-SURGEONS FOR THE OHIO REGIMENTS.—The spirited and stirring words of Surgeon-General Weber in his address to the medical profession of the State, had the desired effect of inducing some two hundred and seventy-five physicians to appear before the Medical Board of Examiners in Columbus, August 5. From this number the Board, after an examination, recommended forty gentlemen for Surgeon and one hundred and sixty for Assistant-Surgeon. We know that no complaint can be made justly against the large majority of medical men who have been assigned to our State regiments. It is probable there will be another meeting of the Board to meet the demand for regiments yet to be raised. —*Cin. Lancet and Observer.*

AMERICAN PHARMACEUTICAL ASSOCIATION.—The tenth meeting of this association, which adjourned in 1860 in New York to meet in St. Louis in the following year, was postponed on account of the disturbed state of the country, and, at the suggestion of the Executive Committee and the consent of many members, was invited to meet in the city of Philadelphia at the present time. It accordingly met on the 27th ult. Although, as was to be expected under the circumstances, the attendance of members at large was smaller than usual, the standing officers and committees were fully represented, as were the several Colleges of the Atlantic cities by their delegates.

At the close of the third day the Association adjourned to meet again in September next, at the call of the President.

AT the late Commencement of the Long Island College Hospital the following gentlemen were candidates for the Degree of Doctor of Medicine: 1. William A. Webster, of New Hampshire; 2. J. C. Morton, of New York; 3. Henry A. Heilner, of Pennsylvania; 4. Joseph McMonegal, of New Brunswick, B. N. A.; 5. O. R. Wilcox, of Albany; 6. Otis M. Humphrey, of Massachusetts; 7. William Richards, of Cuba; 8. Abram H. Hunt, of Ohio; 9. Louis V. Estelle, of France; 10. Asher A. Shiverick, of Massachusetts; 11. William W. Lamb, of Pennsylvania.—*American Medical Times.*

THE PHYSICIAN'S VISITING LIST, DIARY, AND BOOK OF ENGAGEMENTS FOR 1863.—This useful little publication of Messrs. Lindsay & Blakiston has just appeared. It contains an almanac, a list of poisons and their antidotes, a visiting list for 25 patients per week, and pages for memoranda of various kinds.—*Medical News.*

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, SEPTEMBER 6th, 1862.

DEATHS.

	Males.	*Females*	*Total*
Deaths during the week,	49	50	99
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	51.5	50 5	102.0
Average corrected to increased population,	..	..	114.55
Deaths of persons above 90,	..	1	1

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
20	18	1	5	2	1	0	0	3

PAMPHLETS RECEIVED.—An Address on the Life and Character of the late Dr. Charles E. Isaacs, delivered at the Long Island College Hospital, Brooklyn, N. Y., by Joseph C. Hutchinson, M.D., Professor of Operative Surgery and Surgical Anatomy.—Dislocation of the Femur into the Ischiatic Notch, &c., by the same author.

MARRIED,—At Princeton, Me., on the 27th ult., by Rev. C. L. Nichols, Dr. C. Everett Dow to Miss Clara E. Spooner, of Princeton.

DEATHS IN BOSTON for the week ending Saturday noon, September 6th, 99. Males, 49—Females, 50.—Accidents, 5—apoplexy, 1—inflammation of the bowels, 2—congestion of the brain, 1—disease of the brain, 1—cancer (of the breast), 1—cholera infantum, 18—consumption, 20—convulsions, 2—croup, 1—debility, 2—diarrhœa, 2—diphtheria, 3—dropsy, 2—dropsy of the brain, 5—erysipelas, 2—scarlet fever, 5—disease of the heart, 2—infantile disease, 3—disease of the kidneys, 1—disease of the lungs, 1—inflammation of the lungs, 2—marasmus, 1—old age, 2—paralysis, 2—pleurisy, 1—premature birth, 2—puerperal disease, 1—smallpox, 1—disease of the spine, 1—thrush, 1—ulcers (of the stomach), 1—unknown, 4.

Under 5 years of age, 49—between 5 and 20 years, 7—between 20 and 40 years, 23—between 40 and 60 years, 9—above 60 years, 11. Born in the United States, 71—Ireland, 24—other places, 4.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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INJURY OF THE ARM COMMON TO CHILDREN OF ONE TO THREE OR FOUR YEARS OF AGE.

By R. M. Hodges, M.D., Boston.

[Communicated for the Boston Medical and Surgical Journal.]

Feb. 24, 1862. A nurse, holding the hand of a little girl twenty-eight months old, in a moment of impatience gave it a sudden twitch. The child immediately cried out, would not allow herself to be touched, and held her arm motionless. Her mother, however, placed it in a sling, and three hours after the accident the limb was found in the following condition, viz., bent at an obtuse angle and resting against the body, the fore-arm much pronated. There was no apparent swelling or deformity, but the slightest motion was extremely painful, and the little patient was unable or unwilling to hold anything in her hand. On manipulating the limb there seemed to be some impediment in its natural movements, and in attempts to produce certain of these a feeling suggesting crepitus was detected, but before either the seat of this, or the actual diminution of mobility could be determined by examination, the abnormal condition of things vanished, the child ceased to cry, took her playthings in her hand, and the limb was evidently once more in its natural condition.

Feb. 7th, 1862. A little girl, thirty months old, fell whilst walking across the parlor floor, her mother holding her by the hand. When seen, her limb presented a condition precisely analogous to that described in the preceding case—there was the same pronated and semi-flexed position, the child was unwilling to use it and cried the moment it was touched. Before I could ascertain what the exact injury was, manipulation had produced the obscure crepitus, or something which seemed like it, the pain and immobility instantly disappeared, the child readily took its playthings, and with the exception of a little fright was herself again.

These two cases occurred in the course of the same week, and were the first and only ones of the kind which had ever fallen under my observation. I had considered them both as instances of incomplete dislocation of the head of the radius forward. This accident, or, at all events, this phase of it, is not described in the common works on surgery, although a thesis in French, one or two articles in journals, and a description by two or three French writers may be found, in all of which it has been looked upon as some form of dislocation of the upper extremity of the radius. M. Goyrand, of Aix, however, who has written several articles on the subject, takes an entirely different view of the matter. In a paper recently presented to the Surgical Society of Paris (L'Union Médicale, Nov. 23, 1861), and which has fallen under my notice since the occurrence of the two cases above described, he sums up the symptoms of this accident so accurately that I venture to quote his description, believing that, in the absence of any readily accessible account of the injury, its recapitulation, with an abstract of some of his remarks, will not be altogether amiss.

A child, from one to three or four years of age, is saved from a threatened fall by being suddenly caught by the wrist, or it is lifted over a gutter, or made to step up by a violent pull of the pronated hand. At the moment of the strain, the person holding the hand notices a slight snap or shock. The child cries out and continues to complain; the limb hangs motionless by the side, a little in front, with the elbow partly bent and the hand pronated. Any attempt to supinate the hand increases the cries, the rotation outwards is brought up by a mechanical obstacle, and if this is not overcome, as soon as the hand is let go it returns to its pronated position. This symptom is pathognomonic. If the resistance is overcome, a snap is heard or a slight jar is felt, pain ceases, motion is restored and no trace of the accident remains. If nothing is done by the surgeon, after a certain period which varies from a few hours to several days, the limb spontaneously resumes its natural condition, ordinarily during sleep. If any length of time elapses prior to the reduction, either by the surgeon or by the efforts of nature, the hand becomes adducted, and there appears on the dorsal surface of the wrist and the neighboring parts of the forearm a painful swelling similar to that accompanying fractures, dislocations or sprains.

M. Goyrand had always considered the lesion in these cases as a partial dislocation of the radius at the elbow, but so slight as to give no appreciable deformity of the articulation. In 1857, a case occurred which revealed to him what he now conceives to be the true nature of the injury, viz., a displacement of the inter-articular fibro-cartilage of the wrist in front of the carpal extremity of the ulna. In complete pronation, the inferior articulating surface of the head of the ulna is exposed behind the corresponding border of the fibro-cartilage by more than three quarters the thickness of the bone, and hence, in a forced rotation of the radius in the direction of pronation, it is conceivable that the fibro-cartilage may easily be carried in front of the head of the ulna. This displacement occurs only in childhood, as it can only be produced by great violence; in adults, forced pronation is prevented by antagonistic muscles brought into action as soon as pronation becomes painful. This cannot be done by a child. The varying size of the head of the ulna explains why some children, exposed to a cause capable of producing this displacement of the fibro-cartilage, escape the accident.

The following cases are submitted in justification of this diagnosis, and as illustrating the symptoms developed by the accident.

Obs. I. Mary J., one year old, just beginning to walk. July 6, 1861, whilst walking, being held by the right hand, her brother, seven or eight years old, fell heavily against her. The nurse, squeezing its hand, pulled the child quickly towards her, and in doing so felt something "give way" in the little arm. The child immediately began to cry; the limb was held motionless, resting against the body, carried a little in front, and with the fore-arm pronated. No deformity about the wrist or elbow. Motion or pressure about the elbow causes no pain, but pressure on the back of the wrist makes the child cry out. On supinating the hand, the movement was felt to bring up against some resistance, the child cried louder, and the hand when released assumed its previous pronated position.

The arm being held by the mother, M. Goyrand seized the hand in his right, with the thumb on the lower end of the radius and the fore-finger on the head of the ulna; with his left hand he gently supinated that of the child. Before supination was completely effected, the finger resting on the end of the ulna felt a slight shock; instantly the resistance to supination was overcome and reduction accomplished.

Two minutes afterwards the child took in its injured hand a bracelet held out to it by its mother. The mobility was completely regained, and all uneasiness and pain gone.

Obs. II. Margaret D., thirty-five months old, held by the left hand, made a false step, and from the sudden jerk which the hand in a state of pronation received there resulted the injury which M. Goyrand makes the subject of his paper. One of his pupils, a physician in the town where the child's parents reside, being called to the case immediately on its occurrence, recognized the injury and supposed that he had reduced it. The symptoms of the displacement did not, however, disappear, for on the following day the limb was immovable and in a pronated position. M. Goyrand saw the child fifty hours after the accident and noted the following symptoms, viz., those which are mentioned in the previous observation, and in addition, on the dorsal surface of the wrist, a swelling extending to the neighboring parts of the fore-arm and hand; this was extremely tender to the touch, especially at a point corresponding to the articular interspace of the wrist. There was a slight inclination of the hand to the ulnar side of the limb. In reducing the displacement, the finger which rested on the carpal extremity of the ulna felt, distinctly, when the hand was brought into supination, a crepitus precisely like that in a case of fracture. Before supination was completely produced the sensation ceased, opposition to supination was overcome and the reduction was accomplished. Thirty-six hours afterwards no traces of the accident remained.

In both these children the displacement happened again in the same arm. In other cases which have been noticed, the two limbs have been successively the subject of the accident, one after the other.

In the discussion which ensued upon the presentation of this paper, it appears that MM. Guersent, Marjolin, Giraldes and Velpeau were at a loss to accept M. Goyrand's explanation. M. Guersent believed that the cases in question comprised a variety of lesions with certain identical symptoms. M. Marjolin thought that in many of these cases he had seen a deformity about the elbow. MM. Giraldes and Velpeau thought that a dislocation of the fibro-cartilage could not take place without a lesion of the serous membrane of the articular cavity, after which consecutive symptoms should be developed, no matter how simple the reduction might be. Are we then to accept this explanation of the phenomena presented by this injury?

Although M. Goyrand fortifies his opinion by the results of experiments on the dead subject, he admits that the fibro-cartilage will not remain displaced unless the hand is held up and in forced supination. In two attempts which I have made upon very young subjects, I have not been able to produce this dislocation, nor when the joint was opened have I been able to force the fibro-cartilage into the position which M. Goyrand assumes that it takes, without tearing it from its attachments. Any one who will examine for himself the very limited range of displacement of which this cartilage is capable, except by the use of violence which must determine more marked symptoms than ever follow this accident, will be convinced of the error of M. Goyrand's views. Although no two writers agree upon the precise nature of the injury, all of them, with the exception of M. Goyrand, locate it at the elbow. This diversity of opinion is accounted for by the fact, that before its seat can well be ascertained the symptoms disappear with the very first exploratory manipulations. It would seem, from the weight of testimony and from my own experience, that without attempting to account for this somewhat peculiar, and, as I judge, not unfrequent accident, by any ingenious theory or complicated displacement, a satisfactory explanation of its pathology is to be found in the partial luxation of the head of the radius, which, either in one direction or another, is accepted as its rationale by Duverney, Bouley, Monteggia, Martin, and Fougeu d'Etampes. This view finds support in the position assumed by the arm, and the manner in which the symptoms of the injury disappear. Rotation and flexion (which, of course, if carried through the whole range, implies extension) are the first motions which every surgeon gives to an arm when he examines it for a suspected fracture or dislocation; and in a child, where this bone was but partially out of place, might well be adequate to the reduction, even when practised gently and but a single time. An adult would perhaps unwittingly er of his own accord reduce a dislocation of this slight degree, when in a child, from pain and fear, it might remain persistent till surgical aid arrives. In the absence of this, we are told that in the course of time spontaneous cure is effected. Would this occur if there were so serious a displacement as that of the interarticular fibro-cartilage of the wrist? It appears then that the following opinions present themselves.

1st. That of M. Guersent, who conceives that the cases in question comprise a variety of lesions with certain identical symptoms. 2d. That of a number of writers, who attribute the symptoms to a partial dislocation of the head of the radius in one direction or another. 3d. That of M. Goyrand, which has been detailed at length.

The cases present too striking a similarity to admit of the acceptance of the first of these, and of the third we have already given our opinion.

The second, therefore, seems to merit the most favorable verdict, and the latitude which it permits is, in the present state of our knowledge, no more perhaps than it is discretionary to allow.

Since writing the above, a third case has fallen under my notice. A child ten months old was brought to the dispensary, June 24th, 1862, with her hand in a sling, having received an injury to the elbow the afternoon previous, by being lifted up with a jerk by the wrists whilst lying on its back, in which position its grandmother had been putting on a diaper. The symptoms of injury, to wit, crying and inability to use the arm, ensued at once. On examination the following morning, the characteristic position, semi-flexion and pronation, and pain on motion, with the absence of deformity or swelling, led me to suspect the nature of the accident, and I was able to satisfy myself that the seat of injury was not at the wrist. The opposition to rotation was evidently at the elbow, and a single sensation of crepitus was felt at this point, but on manipulating to detect, if possible, the condition of the parts, the resistance to supination was unexpectedly overcome and the normal state of things assumed, before I had ascertained what the precise derangement was which stood in the way of free motion. The experience of this case confirms me in my opinion of the erroneousness of M. Goyrand's views, at least in their general application.

ON CATARACT.—No. II.

[Continued from page [illegible].]

To explain how it is that large pieces of the lens remaining in the eye after extraction may easily interfere with or prevent success, we must go back a little.

What is the state of things in an eye just after the lens has been entirely removed and extraction correctly performed? What changes have taken place? Two substances of considerable volume have passed out of the eye, or rather, been pressed out, the aqueous and the lens. Estimating the average depth of the anterior chamber at 1 line and its breadth at 5½, the axis (of the lens) at 1⅓ lines and its equatorial diameter at 4 lines, and bearing in mind the shape of the spaces excavated, we can approximately estimate the loss of contents which the ball has undergone. It is relatively large and amounts to about the ninth or tenth part of the contents of the eye.

As soon as the aqueous has been pressed out of the eye, we see the pupil very much contracted, and the iris lying close on to the cornea and the lens close on to the iris. In general no air passes in to take the place of the aqueous, and the cornea is not pressed in by the atmospheric pressure, and not even perceptibly flattened. Nor does this in general take place when the lens is pressed out either spontaneously or by the operator.* The iris and vitreous come to occupy the place of the lens.

It is certain that a portion of the loss of contents of the ball is made up by an increased amount of blood in the iris, choroid and retina. But by far the greater portion must be otherwise accounted for. The vitreous cannot expand; consequently the cornea and sclerotic must contract upon themselves or be pressed together. The elastic cushion of fat which surrounds the ball posteriorly might indeed press the sclerotic a little towards the centre of the eye; but whether it really does so, can hardly be shown. * * * * * * The most probable theory is that the ball, somewhat compressed laterally by the muscles (recti-obliqui and orbicularis palpebrarum), becomes smaller in equatorial diameter. What has led Arlt to this view is the fact, that since he has had most of his patients lie down during the operation, the so-called collapse of the cornea has been very much more frequent, and the flowing-out of the vitreous extremely seldom. This naturally agrees with the view he has proposed, that the ball derives that degree of tension which it in normal condition presents to the finger, not so much from its being filled to the maximum with fluids, as rather from the tension and tone of the muscles which surround it on the outside, and of the ciliary muscle which keeps the line of union between cornea and sclerotic drawn inwards.

When the patients lie down during the operation, all the muscles seem to be in a lower degree of tension; the lens is then seldom pressed out of the eye spontaneously, that is, by increased tension of the muscles of the eye; it must almost always be helped out by the following method. The fingers of the operator exert a certain pressure on the ball, according to circumstances, at one time through the lower lid, then through the upper or through both at once. * * * * If now the iris and posterior capsule, after removing in a proper manner the whole of the lens, are pushed forward by the vitreous, then three layers lie somewhat concentric together; namely, the cornea, iris, and posterior capsule. Between the two latter towards the periphery lie the torn edges of the divided anterior capsule. In the attempts at seeing, the rays pass through the cornea, posterior capsule, and vitreous. If remnants of lens or of anterior capsule remain in the region of the pupil, they interfere with vision, partly by keeping out a portion of the light and partly by scattering a portion.

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* Note in the original.—"These remarks apply strictly only when the patient sits at the operation."

If remnants of the lens lie between the anterior and posterior capsule behind the iris, we can recognize the fact in two ways; first, by examining the size and form of the lens removed from the eye; with some practice we can recognize if larger pieces have peeled off. Especial regard must be had to the equatorial diameter and to the edge of the lens. But if the lens is very soft and has not come out whole, but in pieces, then this means of judging fails. Secondly, we examine the edges of the corneal incision to see if they are everywhere well applied to each other; if they are not so, it may be owing to large remnants of lens left in the eye, but also to other causes; we must be able to exclude the existence of the latter, to infer the presence of the former.

A bad corneal incision, especially a sawing one, would probably be unfavorable to the apposition of the edges. If the incision is made too extensive, in the conjunctiva, then a portion of the latter may fall between the edges of the wound (in which case it should be excised); or the peripheral portion of the iris falls forward into it and cannot be replaced, and must without hesitation be excised. (A small portion of the pupillary margin is brought forward and removed.)

Prolapses of the iris which are not occasioned in this way, may be replaced by gently stroking the upper lid and then suddenly opening the eye, or by lightly stroking with the curette. For the most part, however, it is only necessary to make trial of vision, the light causing the sphincter to contract and the prolapsed iris to recede.

The apposition of the edges of the incision may also be prevented by an eyelash accidentally getting between them, or by a clot of blood. Oftener it is a small particle of the lens which has remained in the wound.

When the above causes do not exist, and yet the wound does not close well, it may be inferred that remnants of the lens press forward the iris and cornea.

That a particular situation of the under lid with respect to the globe could prevent the apposition of the flap, seems to Arlt not at all demonstrated, although this circumstance has been cited in favor of the upper section as if it were a matter of course. The under lid may lift the flap, if the latter from other causes is not well apposed; otherwise, not.

If large pieces of the lens lie between the anterior and posterior capsule behind the iris, opposite the corneal flap, they are very likely to press forward the iris and also the corneal flap, as they meet with less resistance in front than behind where the vitreous arches the posterior capsule forward. Then we must lay the index finger on the under lid, and partly by pressure through the lid and partly by stroking upwards, endeavor to bring the piece of lens into the pupil and get it within reach of the curette, or a piece of the iris (sphincter) must be excised. And yet the flap may be in perfect apposition, although remnants of considerable size remain in the fold between the anterior and posterior capsule. Sometimes, notwithstanding great care and attention to this matter, we have, after removing the bandage, been convinced that far more of the lens remained than we had suspected, and that even in cases in which the whole was thought to have been removed, very considerable pieces were left, sometimes occasioning disagreeable consequences (prolapsus iridis and iritis), and even loss of the eye (irido-chorioiditis). To this class belong many cases in which the cataracts were not perfectly ripe when operated on; not, however, from failure to recognize this fact, but from being urged to operate by other circumstances. As excuse for operating in such cases, it must be mentioned, that we find that a pretty large number result successfully, or at least, not unsuccessfully, even when the cataracts are unripe, and when considerable remnants (of ripe or unripe) are left behind in the eye; and by the above, it was not intended to say that every extraction performed before complete ripeness of the cataract must necessarily turn out badly, but only that one of the most frequent causes of an unsuccessful or a less favorable result than was hoped for, is owing to leaving behind in the eye pieces of lens of considerable size.

If the edges are well in apposition the union takes place in a short time. It is very probable that, after ten or twelve hours, the aqueous is again restored and remains so. At first, a few hours after the operation, the union is still so weak that, from time to time, some of the aqueous flows off. Subsequently this ceases (in normal cases); but if it continues, it is not without injury, or, at least, danger.

The bursting open of the wound at a time when the union ought to be firm, may be owing to various causes. Among them, one that has been too little considered is the pressure of remnants of the lens.

It is well known that when, after opening the anterior capsule, the fibres of the lens are brought into direct contact with the aqueous, they then become cloudy and subsequently swell out, finally become fluid, and are absorbed. Transparent fibres seem capable of much greater swelling after opening the capsule, than those which were already cloudy and swollen before contact with the aqueous. After the operation of discision, which consists merely in puncturing the cornea with a very fine needle, and making one or more incisions in the anterior capsule, we sometimes see, after a few days, and after the lens has become swollen, extremely dangerous symptoms—for instance, much redness about the cornea, chemosis of the conjunctiva of the globe, hemicrania, and even vomiting, &c. Nowadays it is known that these symptoms are owing to increased intraocular pressure arising from the swelling of the lens, and that they can be controlled, if at all, not by bleeding, cold lotions, mercurials, &c., but only by atropine, letting off the aqueous, iridectomy or linear extraction, together with or without iridectomy. They can best be avoided by making only a small opening in the capsule, and by taking care not to break in pieces the lens itself as was formerly advised. In this way we best prevent the too sudden swelling of the lens. If we apply to the case of extraction what is observed in discision, we can anticipate what may take place if portions of the lens of considerable size remain, with the large opening in the capsule, and supposing the aqueoas to continue restored. Clinical observation has furnished facts which accord with this supposition, or rather, which find their explanation in the theory obtained by observing the operation of discision.

[To be continued.]

HOSPITAL REPORT.—THE SACCHARINE TREATMENT OF DIABETES MELLITUS.

By John Hughes, M.D., Senior Physician to the Mater Misericordiæ Hospital.

The saccharine plan of treating diabetes originated, I believe, in France, and so far back as 1845. Bouchardat gave saccharine fruits in diabetes, and bread made from gluten. Andral and Piorry tried a similar treatment, with some success. And the practice has been recently adopted in England, by Dr. Budd, of Bristol, who has published some cases (two, I think) in which he says the most marked amendment followed the use of sugar. Others have also recorded cases; but they do not exhibit so favorable a result as those of Dr. Budd. It would appear, however, that some practitioners who tried this plan have found it beneficial. Their patients grew fat upon it; and even this effect, in a disease where wasting is so prominent a symptom, is a very desirable result. They say, besides, that the practice is not an irrational one; for Bernard has shown that sugar taken into the stomach, in its passage through the liver, is converted into an emulsive substance, which tends to fatten patients; and he has also proved experimentally, and Andral and others practically, that sugar is secreted and found in the circulation in diabetes, whether the individual be fed upon nitrogenous or amylaceous substances; consequently our old-established plan of dietetics in this disease, with all its restrictions, is useless.

Dr. Budd, one of its earliest advocates in England, says he gives sugar in diabetes on the principle of supplying to the system the particular element which is running to waste, and the loss of which appears to be the principal cause of the damage sustained by the constitution as the disease advances. On all these grounds, then, it has been considered that the saccharine treatment of diabetes is worthy of a trial.

Amongst the many theories propounded concerning this intractable disease, modern researches incline to the opinion that the liver is the organ in fault—an idea long since entertained by Dr. Prout. Experiments by Bernard and Pavey tend to show that there is always present in the liver, located in the hepatic cells in considerable abundance, a substance which one calls the "glucogenic matter" of the liver, the other "hepatine;" that this substance is, with great facility, by a process allied to fermentation, converted into sugar; but that it seems to have the power, whilst located in the tissues of the living and healthy liver, to resist the transformation. In certain unnatural conditions, however, as well as after death, this power is at an end, and the blood becomes surcharged with saccharine principle.

If this be true, it would appear that the diabetic condition depends upon some functional derangement of the liver, which converts alimentary substances into this glucogenic matter in greater abundance than natural, and allows it to mix with the blood in large quantity, when it immediately becomes converted into sugar, and as such passes off with the urine.

I am not sure, even assuming all this to be correct, whether we are in a better position to decide upon the exact nature of this disease. Probably, however, it is to physiology we shall have to look, in the end, for a solution of this difficult question; for pathology is strangely barren of results in this disease; so much so that it is doubtful whether the presence of sugar in the system either necessarily depends upon, or produces, visible organic lesion of any particular organ. When organic diseases do exist, they are looked upon as merely concurrent affections.

However, it is not my intention to discuss the nature of diabetes mellitus; I merely wish to give a brief account of how this saccharine plan of treatment turned out in my hands, after a trial of more than four months.

Four cases of diabetes mellitus came under my care in hospital, almost simultaneously.

The first was a man named Thomas Ryan, aged 37, who had been diabetic for 13 months before admission, and had been under treatmen for his disease during the greater part of that time. On admission he was voiding, daily, eight pints of urine, specific gravity 1049, and containing 22 grains of sugar in each ounce. He complained of great thirst, languor, and debility; the skin and mucous membrane were dry; the bowels confined; and all the usual symptoms of diabetes were present.

I treated this man with Dover's powder and the vapor bath, for a fortnight, when he left the hospital relieved in respect to the condition of the skin and mucous membrane; his thirst was abated, and the skin was somewhat moist; the quantity of urine varied with the amount of fluid drunk, but its condition was unaltered. He thought he was growing weak, and wished to go home. He told me his father had a complaint similar to his own.

This man returned on the 18th January, and was then voiding 10 pints of urine daily, of a specific gravity 1041, 24 grains of sugar in each ounce. He said he drank a large quantity of beer, one day, at home, and was not as well since. I now determined to put him on the saccharine treatment, and ordered him six ounces of barley sugar daily; diet of fresh meat, with green vegetables and bread; also a moderate quantity of lime-water and milk. He continued this plan steadily for three weeks; and at the end of that period his condition was, to a certain extent, improved. The quantity of urine passed was seven pints, the specific gravity 1041; each ounce contained 24 grains of sugar; and he had gained two pounds in weight. The skin was somewhat moist, thirst abated. He was again anxious to return home, and left the hospital.

The second case was a man, aged 40; but as he was not in hospital more than a week, and was treated with sudorifics (Dover's powder) alone, and almost an exclusively animal diet—I will only refer to his case. In fact, he would not submit to the abstinence from fluids, and the variety of food which I enjoined. He left without any apparent change. There was one fact connected with him of interest—he told us his father had the same ailment he was laboring under, and died of it.

The next patient was a man aged 32 (John O'Neill), who suffered from the complaint for 18 months before admission. On the 3d January he was voiding 15 pints of urine, of a specific gravity 1043, 18 grains of sugar to the ounce. He was very thin, and had all the symptoms of diabetes in an aggravated form. He was treated with sugar and a mixed diet, like the former patient; and at the end of six weeks his urine was reduced in quantity to six pints—the specific gravity remaining the same. All the other symptoms were greatly relieved, and he felt himself much better and stronger; in fact so well that he was anxious to go and resume his former employment (that of a shopman). Yet, on weighing him, we found he had lost four pounds in weight since his admission, and his urine contained 22 grains of sugar to the ounce. We heard that he has since died of phthisis.

The last and most interesting case is that of Henry M'Nee. He was a married man, 30 years of age; tall, well-proportioned, and of a very athletic frame. He was always temperate; had no hereditary predisposition to the disease, and attributes his illness to profuse perspirations and alternate chills while working as a railway laborer. Five years ago, when employed in England, he first noticed his disease, and was treated for it at the Manchester Infirmary. After four months stay in that institution, he left at his own request, relieved sufficiently to resume his work, at which he continued for 11 months before admission. At that time he noticed the aggravation of his disorder, which set in with great thirst, increased flow of urine, general weakness, and rapid loss of flesh.

On admission, all these symptoms had attained a great intensity. He said he was only the skeleton of his former self; for, when in health, he weighed more than 14 stone, and now he did not reach 12; which surprised him, when he could eat so much—four times his ordinary quantity—and he did not feel sick, only very weak. He was voiding 10 quarts of urine in 24 hours, of specific gravity 1049, and was obliged to empty the bladder every hour. He drinks about the same quantity of fluids within the same time. His urine has an acid reaction, is free from albumen, and each ounce contains 24 grains of sugar. As an evidence of his broken down health we found a large, chronic, indolent ulcer over the right external ankle.

I was determined to give the saccharine treatment an uncomplicated trial in this case; and, after an aperient, I put the patient on six ounces of sugar, daily, together with four ounces of treacle; bread, meat and green vegetables for diet; lime-water and milk for drink—with an injunction to limit the amount as much as possible.

At the end of a month he was somewhat improved. He had gained two pounds in weight; his thirst and appetite were diminished; the quantity of urine passed in 24 hours was reduced from 10 to 7 quarts; the specific gravity ranged from 1043 to 1045—26 grains of sugar to the ounce.

During the next month he had two attacks of sudden and violent sickness of stomach, accompanied with constant vomiting and cramps in the abdomen and legs. He complained, for a few days, of great nausea, and felt as if saturated with sugar; everything, he said, tasted sweet. He was, at the same time, weak. The urine was of a specific gravity of 1044—not lessened in quantity. The ulcer of leg was healed. The sugar treatment was discontinued.

After the lapse of a few days the sugar was again resumed; and his condition, at the end of another month, was as follows:—His weight, 12 stone 11 lb.; consequently he had gained nine pounds since last report. His urine is reduced to three quarts in 24 hours; and he is not disturbed more than once or twice to pass it during the night. His skin is moist; his bowels are regular; he has gained strength, for he is able to work at the force-pump of the hospital for an hour without resting. The specific gravity of the urine is 1035–9, but it contains a *greater amount* of sugar than before. According to Garrod's glucometer each ounce contains 40 grains of sugar. His appetite and thirst have decreased; the ulcer of the leg has broken out again.

After four months stay, he left the hospital in the month of May, and obtained employment as a porter, which obliged him to carry considerable weights; he remained at this work for six months, during which time I saw him occasionally; but at the end of that period he was completely prostrate, and sought relief in another hospital. As the sequel of his case has been published, I will add some extracts from the report:—

He was admitted into Dun's Hospital, under the care of Professor Law, in the month of January, and was then voiding 16 pints of urine in 24 hours—specific gravity 1042. On the 10th of February the quantity of urine was 12 pints—specific gravity 1035–9, and contained 8·750 grains of sugar, or about 45½ grains to an ounce. On the 8th of March the quantity of sugar was 59 grains to the ounce, the amount voided being the same. On the 20th March the quantity of sugar declined to 34 grains; and on the 8th May the urine was reduced to 10 pints, and there were 38 grains of sugar in each ounce.

He left the hospital in July, but was again readmitted late in October, in an advanced stage of phthisis; and on the 10th November the *post-mortem* examination showed extensive tubercular disease in both lungs. "Both kidneys were very large; one weighed 12½ ounces, the other 11. Both were much congested, but exhibited no trace of disease or deviation from their normal structure. The liver was perfectly normal in size and appearance; and, on examination, did not contain a trace of sugar. It was, in fact, to the eye and to chemical analysis a specimen of a healthy liver."

It will be seen from these cases in which the saccharine treatment has had a pretty fair trial, that, to say the least, it produced no permanent improvement. The specific gravity of the urine was not altered, and in each instance its saccharine quality was aggravated. 'Tis true the amount of urine voided within a given period was considerably diminished; but I think that result is very much within the control of the patient, exclusive of medicine. I mean, of course, if he checks his desire for fluids. The gain in weight and the increased strength may be more justly attributed to other causes than to the amount of sugar taken; and I am quite satisfied, so far as my observation enables me to judge, that the saccharine treatment of diabetes is not entitled to the credit which its advocates claim for it. All that can be said for it is, that it is vastly agreeable to patients, and is not positively injurious, as one might *a priori* be inclined to suppose.—*Dublin Quar. Jour. of Med. Science.*

THE ASTLEY COOPER PRIZE of 1500 dollars has been awarded to Dr. Edward Crisp, by the physicians and surgeons of Guy's Hospital, for his essay on Anatomy, Physiology, and Pathology of the Human Pancreas.

BRITISH MEDICAL ASSOCIATION.—The thirteenth annual meeting of this association was held in London on the 5th, 6th, 7th and 8th of August. We see by our late journals that the meeting was largely attended and was a highly interesting one, and that Professor Wood, of Philadelphia, and Dr. Ephraim Cutter, of Woburn, Massachusetts, were present.—*Medical News.*

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

AUG. 25th.—*Lumbar Abscess; Early Opening; Speedy Recovery.*—Dr. ABBOT read the following account of a case, which he had received from Dr. Stephen Tracy, of Andover.

"The patient, Mr. W. H., age 30; married; stature rather below the average height, and rather thick set; hair and beard very dark; skin soft and thin; cheeks full, florid; muscular motions very quick; occupation shoemaking, mostly; habits strictly temperate.

"In December, 1859, he suffered from pain in left lumbar region, regarded at the time as rheumatic. Was then under treatment about two weeks. Has occasionally experienced pain there since, but has been otherwise well, and has labored hard.

"On the 7th of March, 1862, I was called to see this patient. He said that for several weeks he had felt something of that old pain in his side, and yet it was not exactly the same as he had before. It had now become so severe that he must have medicine.

"At first I regarded it as rheumatic, but after some ten or twelve days I was led to suspect lumbar abscess from the characteristic drawing up of the knee; irritative or hectic fever, followed by profuse perspiration; severe, sharp pain, &c. In the course of a few days, the painful region was found to be slightly swollen, and the patient complained of a peculiar numbness in the centre of the diseased part.

"After a few days a tumor could, by hard pressure, be distinctly felt; its centre being midway between the crest of the ileum and the ribs, and under the anterior border of the tendinous expansion of the latissimus dorsi muscle. The drawing upwards and inwards of the knee rather increased, and so did the fever. In short, there was every evidence of the existence of an abscess except the feeling of fluctuation (and the tumor was too deep for that), and the actual seeing of the pus. The constitutional symptoms increased; appetite nearly gone, and the patient was losing flesh and strength rapidly. Yet he was able to sit up in a chair much of the day, but it was becoming morally certain that he would ultimately sink, unless relief could be soon afforded.

"This state of things led me to seriously call in question the wisdom of surgical writers in regarding lumbar abscess as forming an exception to the general rule to open abscesses situated under fascias early. I could think of no sufficient reasons for so doing, and resolved upon using an exploring needle, or trocar rather, and if I found pus to give it exit. Accordingly, on the 31st of March, twenty-four days from the time of my first visit, having etherized my patient, I introduced a small exploring trocar into the central part of the tumor. It was not till the point of the instrument had reached the depth of three inches, within a line or two, that diminished resistance evidenced its entrance into the cavity of the sac. I then withdrew the stilette, but no fluid followed. Feeling positive that I had penetrated a cavity containing pus, and thinking it might be too thick to flow through so small a canula, I applied my mouth, and by repeated strong suction drew out laudable pus. My diagnosis was now beyond the possibility of doubt. I then introduced along the track of the canula a narrow (three-sixteenth inch wide) bistoury into the sac of the abscess, then pressing the point of the instrument forward, made the inner extremity of the opening a very little larger than the outer. I then turned the instrument, and pressing upon the point, made the inner portion of the incision larger than the outer by cutting the fibres of the fascias at right angles; then, turning the instrument to its first position, I withdrew it. A few drops of thick pus followed. I then introduced a grooved director from my pocket case, four and three-fourths inches before meeting with the least resistance. I then withdrew the instrument about an inch and a half, and made firm lateral pressure with the point of the instrument in all directions, with the design of thus preventing adhesion taking place, particularly at the inner part of the opening, before the pus should be discharged. I then withdrew the instrument, leaving the external opening only of the size necessarily made by the narrow bistoury used.

"A poultice was now applied and I left my patient, expecting that I had made such an opening through the several fascias as would enable the vital powers, before many days, to make an exit for the pus without any risk of the absorption of atmospheric air into the cavity of the sac.

"In this I was not disappointed. There continued to be a discharge of a drop or two of pus from time to time for five days, when it became sufficiently free: from one to four or six ounces or more escaping at a time on several occasions. No flocculi were discovered in the pus, but it became more thin and watery towards the last. The discharge continued in gradually diminishing quantities for about three weeks, when it entirely ceased. I think there could not have been less than two pints, and the family say there was certainly more than three pints discharged in all.

"The swelling, of course, diminished rapidly, and so did the drawing up of the knee as well as the irritative fever, while the appetite and strength as rapidly increased. By the first of May he was able to be out upon the street, and by the first of June was able to work half the day without injury, and has continued improving without any drawback, till now, Aug. 22d, he considers himself *entirely* well; and, so far as I can see, is well, and has been so for more than two months.

"The treatment throughout was anodyne, alterative and sustaining. About three weeks after the opening, I commenced the application of the ethereal tincture of iodine to the part, extending it over the whole left lumbar region, with evident benefit in forwarding the cure. It very perceptibly increased the quantity of urine.

"Query 1st. Have I probably seen the last of it?

"2d. Did I reason and act wisely in opening it as early as I did, and in the manner I did?"

Dr. Gay thought there was some doubt as to whether the case really were one of lumbar abscess, since there were no symptoms referable to the vertebral column, and the pus was laudable, instead of being thin and curdy, as is usually the case in lumbar abscess.

Dr. Hodges observed that a "lumbar abscess," that is to say, an abscess dependent on some lesion of the vertebræ, does occasionally point in the lumbar region, yet its ordinary course is along the psoas muscle, and within its sheath, to the front of the thigh, whence its common name. Considering, therefore, the rarity of the former occurrence, the acute character of the symptoms characterizing the present case, the absence of constitutional disturbance on letting out the matter, and the subsequent history of the patient, the presumption seemed to be rather in favor of an idiopathic abscess in the lumbar parietes. The puncture was probably made in the region of the quadratus lumborum, and, not near the psoas muscle, which, indeed, could hardly be reached, if the opening were made from behind. The depth to which the trocar penetrated was probably less than the reporter imagined. Abscesses of the iliac fossa have been opened in this region, and M. Nélaton observes, that the thickness of the soft parts which the knife passes through, is not great enough for the operation to present any difficulty.

Dr. Gay thought that most surgeons would have hesitated before plunging a trocar to the depth of three inches in that direction, without coming to any matter, unless there were great external swelling and fluctuation.

Aug. 25th.—*Fatal Apoplexy; Mass of Cholesterine in the Gall-bladder.*—Dr. C. E. Ware showed a mass of nearly pure cholesterine of a perfectly oval form, about the size of an almond with the shell on, which was taken from the gall-bladder of a man who died of apoplexy. The patient was a shoemaker, about 58 years old, previously healthy, who was found lying beside his bench, insensible, shortly after he had dined, having vomited copiously. He was breathing heavily; there was no distortion of the features; the pupils were slightly dilated and fixed. There was no voluntary motion of either extremity. The respiration was alternately calm and labored. The man died about six hours from the time of his attack. At the autopsy, a large extravasation of fluid blood was found under the membranes of the brain, and between the convolutions under the right temporal bone, in the region of the lateral sinus. No blood in the ventricles. In the substance of the right side of the pons Varolii was a considerable effusion of blood, partly coagulated; a similar effusion, rather less in extent, in the left side of the pons. The upper part of the left side of the pons, in the neighborhood of the fourth ventricle, was a good deal broken down, and the upper part of the left hemisphere of the cerebellum was a good deal softened. The general appearance of the brain was healthy, though somewhat flabby and pale. The arteries of the base of the brain were accidentally not examined.

The thoracic viscera were healthy; the cavities of the heart were all entirely empty.

The gall-bladder was filled with a thin, semi-transparent fluid. Encysted in its neck was the mass of cholesterine mentioned above.

The capsule of the right kidney was somewhat thin, but adherent, so that portions of the kidney were torn away where it was removed. Externally it was granular in appearance, and of a slightly yellowish cast, masked by engorgement with blood. The organ contained two or three small cysts filled with a pale fluid. For the extent of one half the kidney, the pyramids, and all traces of renal structure, were obliterated. In the remaining half the calices were dilated. The microscope showed oil globules and broken-down tubules in abundance. The left kidney was nearly healthy in appearance.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, SEPTEMBER 18, 1862.

Manual Extension as a Substitute for Tenotomy for the Cure of Deformities from Muscular Contraction.—Of late years, tenotomy has got into such extensive use for the removal of this class of deformities, as to take the place of almost all other modes of treatment. It is therefore with much interest that we have read in the *Journal de Médecine de Bordeaux* an account of Dr. Larghi's successful management of these affections by manual extension alone. We translate the notice in full, believing it will interest our readers.

Tenotomy for the cure of muscular contractions has been considered, up to the present time, as constituting a genuine advance in the treatment of this class of affections. The Surgeon-in-Chief of the Hospital of Vercelli, however, Dr. Bernadino Larghi, has declared himself in opposition to this method of treatment. When a part is contracted, shortened, says he, what should be done? It must be lengthened. It is then to extension, not to incision, that we should have recourse. The surgeon acts like a harpist, who, to elongate the string of his instrument which is too tense, divides it. This is a fundamental error. This fact is so evident to the author, that he thinks it needs no demonstration. Tenotomy to him has been a step backward in surgery. To-day there is a slight reaction from the furor with which tendons and aponeuroses were divided; but if there is a temporary pause, the means have not yet been discovered by which the affections for which tenotomy has been employed may be cured without it. This method is very simple: it is manual extension, which Dr. Larghi has employed for years (*da anni ad anni*); momentary extension, made morning and evening or even but once a day.

It must not be thought that the author is ignorant of the condition of the affected parts, the tendons, mucsles, &c. of the shortened members, nor of what happens after tenotomy. But it is not only at the place for incision that he thinks it necessary to practise extension, where he might obtain a partial elongation, but to be effectual it must be practised in the whole course of the fibres implicated; and manual extension does this. It is by the normal muscular action, the action of contraction and lengthening, that we must hope to overcome these contractions. The contracted parts are atrophied, and it is only extension which will restore their length, the movement rousing them to new life, giving them increase of vigor to overcome and diminish to a great degree the atrophy.

After thus announcing the results which he hopes for from extension, Dr. Larghi explains his manner of employing it. It should last for a few moments only, be very gently applied, and very slowly. He afterwards examines its effects on all the parts implicated, muscles, tendons, aponeuroses, arteries, veins, nerves, and lastly the joints. He supposes a case of tenotomy practised for contraction of the thigh or at the knee, and compares it with the manual operation which has succeeded admirably with him since he renounced tenotomy and has had recourse only to extension or manual flexion.

Dr. Larghi has before strongly recommended the treatment by extension in the *Journal of the Royal Medico-Chirurgical Society of Turin,* for April, 1858. He had employed it with success in club-foot and contractions of the hand upon the forearm. There is, notwithstanding, a case in which he leaves it an open question whether extension is preferable to tenotomy; it is where there is *excessive* contraction of the hand upon the forearm. But in the cases where there is atrophy of the hand, arm, shoulder, together with the corresponding part of the trunk and head, it is useless to think of extension, and tenotomy is even more powerless.

Before tenotomy was practised, apparatus was employed; but this was an error, not of principle but of *modus faciendi.* The apparatus acted too powerfully and in a permanent way, whereas manual extension is an intelligent act, combining extension and flexion.

It was after employing tenotomy with more or less success that Dr. Larghi was led to employ extension, trying it in cases of contraction of the leg upon the thigh caused by the flexor muscles, of the forearm on the arm, the thigh on the pelvis, the arm upon the shoulder, and the shoulder on the trunk. By degrees he extended the application of his method, and finished by employing it in cases of club-foot.

In his published articles the author explains his manner of operating in each case; giving the details, which are full of interest. The extension should be repeated every day, so as to put in practice the adage of the imitator of nature, *nulla dies sine linea.* He does not pretend to say absolutely that he can act upon bony deformities, but he believes that he can modify them very advantageously. Perhaps he would have done better, had he, instead of contenting himself with mentioning his success in general terms, given in detail some of these facts. The following is a case of a patient still under treatment, and which is full of interest.

A young child was affected with varus of the right foot, and contraction of the left hand, so excessive that the atrophy involved hand, forearm and arm to the shoulder, the trunk, and the neck; the muscular and bony systems being both involved. The left hand is inclined towards the cubital side, and the palm towards the palmar surface of the forearm. This hand, which is incapable of any movement, cannot sustain the least weight, neither can the left arm be raised. By a series of manipulations some improvement has already been gained in the club-foot, the child being able to walk in the ordinary way, having previously dragged the foot after him, turned inward. The following is Dr. Larghi's method of extension. The patient is laid upon his belly and chest, face downwards. Holding the thigh firmly down at the tibio-femoral articulation, with one hand he seizes the lower extremity of the leg, and extends it little by little. Passing next to the foot, fixing the plantar surface against the operator, the heel being up and firmly held, he carries outwards the anterior and inverted extremity, and afterwards applies extension to the plantar surface itself. After a few repetitions of this operation the club-foot was entirely cured, and at the present time the patient walks with the right foot like the left, without using a cane or limping.

In operating on the hand he applied extension to the forearm with the dorsal surface turned upwards. An attendant held the hand, while another held the upper extremity, the palmar surface being turned downwards. The two assistants then made extension and counter-extension. The fingers, which were also contracted, were at the same time drawn upon. The surgeon applied pressure upon the back of the wrist. This treatment was kept up for some time, the extension being repeated at short intervals; afterwards the extension was made at longer intervals. The arm, which at first could not be raised, can now be easily carried above the head, and both arm and shoulder have acquired sufficient movement, and the complete cure is certain. The contraction of the hand is less strong, and it is certain, that although it is turned inwards, the patient is able to open it sufficiently to seize and hold a light weight, which he could not do at first. It may be asked whether in this case more might have been gained by tenotomy. There can be no doubt of the answer.

We believe Dr. Larghi has opened a way in which others may follow: and we advise our brethren who may wish to obtain more of the details of his operations, to read the Memoir which the author has published in the *Gazzetta Medica Italiana*, January, 1862.

THE FROZEN WELL IN VERMONT.—A Committee of the Boston Society of Natural History, Dr. C. T. Jackson being Chairman, have made a report on the frozen well of Brandon, Vt., in which they say—

"Although we do not feel that we have been able to remove all doubts as to the true theory of the phenomena of the frozen well, still we incline to believe that the freezing is due to the nature of the conducting medium in which the well exists, and that the wave of heat in the summer months is not adequate to overcome the cold of the longer cold months, while the uncommonly severe winters of 1856 and 1857 may have lowered the temperature of the rocky masses of boulders, so that the wave of summer heat has not yet been able to reach the frozen mass, which, once congealed, would resist thawing on account of the slow conduction of ice. It should also be remembered that water does not conduct heat downward readily, though it does upward by convection."

IRIDECTOMY IN GLAUCOMA.—The Editor of the *American Journal of Ophthalmology* says,—In allusion to an interchange of statements by Dr. J. H. Dix of Boston, and Dr. Bumstead of New York, on the subject of performing iridectomy in glaucoma, and as to the priority of its performance in America, the Editor takes pleasure in stating that he—arrived in this country on the 4th of January, 1861—performed iridectomy in a case of chronic glaucoma in the beginning of February, and since. It will thus be seen that he performed the operation as early as it was well possible, and among the first.

"Furthermore, our results have been such as to confirm our previous views concerning its utility—views that we cannot change, even though, 'at the New York Eye Infirmary, Hancock's operation is preferred to Graefe's, as avoiding *deformity*.' [?!]"

WE understand that the "Hand-book of Surgical Operations," by Dr. Stephen Smith, of New York, lately issued by Bailliere Brothers, very soon passed to a second edition, which has been already taken up, and that a third edition will shortly be in readiness. The work is well adapted to the more pressing wants of the profession at this time, and we are glad to learn that it is having so extensive a circulation.

PROVIDENCE, R. I., Sept. 13, 1862.

Mr. Editor,—I send you the following extract from a letter recently received from my friend, John Stanton Gould, of Hudson, N. Y. The gentleman, though not a medical man, is entirely competent to observe what he relates; his statement may therefore be implicitly relied upon. He met with the specimen during a recent visit to the Adirondack forests. The case seems to me worthy of record in the JOURNAL.

Yours truly, G. L. COLLINS.

"Two years ago a hunter, living near the head of Long Lake, shot a deer through the brain. On cutting it up, he found a curious appearance about the heart, which he cut out and preserved, first in salt and afterwards in spirit.

"The deer had previously been shot with a rifle ball, which had entered the chest, passed through the left auricle, diagonally through the left ventricle, the septum, and stopped in the outer wall of the right ventricle. The opening in the septum was closed by a membrane, as was that in the ventricle.

"After such a wound the deer recovered, and when shot, was fat and in splendid condition in all respects."

HEALTH OF PROVIDENCE, R. I.—From Dr. Snow's monthly report for August, it appears that the remarkable low rate of mortality in that city during July was not continued in the succeeding month, although the public health was still favorable—the deaths not exceeding the average number for the month of August in former years. The whole number of deaths for the month was 109—giving 1 in 464 of the inhabitants. Under 5 years, 60; between 80 and 90 years, 6; between 90 and 100 years, 3. Of consumption, 16; cholera infantum, 29.

40th Mass. Reg't—Dr. O. A. Brewster, Surgeon, and Drs. J. Cass and Andrew Smith, Assistant Surgeons. 41st Reg't—Dr. A. H. Blanchard, Surgeon, and Dr. J. Blackmer, Assistant Surgeon.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, SEPTEMBER 13th, 1862.

DEATHS.

	Males.	*Females*	*Total.*
Deaths during the week, ...	32	41	73
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	49.7	49.9	99.6
Average corrected to increased population, ...	..	..	111.16
Deaths of persons above 90, ...	..	0	0

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
10	13	2	1	2	0	3	2	0

PAMPHLETS RECEIVED.—Variola; its Nature and Treatment. By Andrew Nebinger, M.D., Philadelphia.—Medical Testimony in regard to the proper Mechanical Treatment of Joint Diseases. By Henry G. Davis, M.D., New York. Report of the Surgeons of the New York Ophthalmic Hospital, for the years 1860–61.

MARRIED,—At Acworth, N. H., on the 11th inst., by Rev. Amos Foster, S. M. Dinsmoor, M.D., of North Branch, to Miss Georgiana Carey, of Lempster.

DIED,—At Chelsea, on the 21st August, Dr. Alpheus Proctor, aged 57.

DEATHS IN BOSTON for the week ending Saturday noon, September 13th, 73. Males, 32—Females, 41.—Apoplexy, 1—inflammation of the brain, 1—burns, 1—cholera infantum, 13—consumption, 10—convulsions, 2—croup, 2—debility, 1—diarrhœa, 5—dropsy, 1—dropsy of the brain, 4—dysentery, 3—erysipelas, 3—scarlet fever, 1—typhoid fever, 2—disease of the heart, 2—hydrosis, 1—infantile disease, 6—intemperance, 1—disease of the liver, 1—inflammation of the lungs, 2—marasmus, 1—measles, 1—old age, 3—tonsillitis, 1—unknown, 4.

Under 5 years of age, 39—between 5 and 20 years, 5—between 20 and 40 years, 15—between 40 and 60 years, 6—above 60 years, 8. Born in the United States, 55—Ireland, 13—other places, 5.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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CASE OF RETENTION OF A PORTION OF THE PLACENTA—FROM MY NOTE BOOK.

By W. Channing, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

Mrs. ——, 41, was taken in her fourth labor, November 24, 1861. She was attended by a midwife, and was naturally delivered at 7, A.M., of a son. I was called to see her at 2, P.M., of the same day. I had attended her in her third labor, which was without accident, and learned the following particulars of her history, the recital being prompted by the diseased condition which led to the call. From girlhood Mrs. —— was in the habit of rejecting a portion of every meal. She did not vomit it, but it would accumulate in her throat, as for rumination, and be gradually spit up. At times there was great distress in the stomach after eating. This condition has often been present during her whole life, but has never seriously impaired her health. I do not recollect that it was alluded to in the labor in which I attended her.

In the seventh month of her present pregnancy, the stomach trouble declared itself in an unusually severe form. She could not bear any amount of food on her stomach, and while it was retained, her distress was extreme. It had no resemblance to that state of stomach which attends on early pregnancy, nor on that which sometimes occurs at the close of that function. It was accompanied by great suffering. One symptom was especially referred to. This was intense heat in the organ. So great was this, that at times she drank, in a night, nearly or quite two quarts of cold water. When first swallowed or while cold, there was comfort, but as it grew warm this disappeared and the water was violently thrown up. She did not perceptibly lose strength or flesh, and but for the long continuance of this disturbance, it might have been regarded only as a modification of the sympathetic stomach difficulty which occurs in the last months of pregnancy, and at times with such severity as to render premature delivery necessary to save life. At times there was more or less embarrassment of respiration during the attacks. The bowels had not been much disturbed.

It was said above that labor was over at 7, A.M. It was but an hour long. The afterbirth was adherent, and the midwife took it away, as she said. Some hæmorrhage attended, and followed, the operation, but was not deemed of sufficient amount to detain the attendant for more than an hour, she leaving at 8, A.M. Mrs. —— had another professional engagement, if such it could be called. Her next attendant was a *Botanic*, who brought two bottles, with printed labels, one labelled *liniment—external*, *internal*, and a powder. One label was partly scratched off; but a part of the written directions was, "teaspoonful *swollowed*." Mrs. —— took one dose, but such was the intenseness of heat which it produced in the mouth, and the racking pain in the stomach till she vomited it, that she declined taking a second dose. An homœopath was next called. The three tumblers, No. 1, No. 2, No. 3, were duly arranged on the table, with a teaspoon in each, lest disturbance of therapeutic effects might be produced by using the same spoon. Mrs. —— took Nos. 1, 2, 3, till she was tired, getting not the least relief from the *potency;* and I was desired to see her, and at once, as it was feared she would die before my arrival, if it were delayed.

I found her in great distress. Her breathing was short—as if the air, having reached a certain point, could get no farther. Violent attempts were made at eructation; and from the stomach, black masses like blood were thrown in the vomitings. I asked about this, and was told that in the four days previous to labor the appearance of the matters vomited resembled these now ejected. Upon examination of the abdomen, pressure could not be borne at the epigastrium, and this was found to be the case by carrying the pressure to the left hypochondrium—the right was not disturbed by pressure. The uterine tumor was very large, considering that it was now eight hours since delivery. I felt for the pulse, but found none, either in the right or left wrist. I asked if she had flowed much. "Yes," was the answer, "excessively," and flowing still continued. The napkins removed showed this. She was flowing when the attendant left.* Notwithstanding all this, the color of the lips and the warmth of the skin were perfectly natural. The strength seemed good. There was no sighing, but a very striking dyspnœa. The voice was clear, and the manner not at all depressed. The womb was examined. Coagula were removed, and the os uteri felt. It was closed, during this operation, and was high up, very firm, and too tender to tolerate any degree of pressure more than was necessary to ascertain its actual state. The womb, as was said, was unusually large, and perfectly solid. At one spot pressure produced flinching. It was at this point, the midwife said the placenta had been attached. Stimulants were given, at once, and to relieve the alarming distress opium was added. While these measures were proceeding, means were used to check the hæmorrhage. A firm bandage was applied round the abdomen. The tampon was used, as was ice, and a strap from the bandage was passed between the limbs, and drawn strongly over a compress applied to the external organs.

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* A neighbor was called in as the attendant left, who told me some time after that such was the saturation of the bedding and bed with blood, that it was deemed necessary to remove Mrs. —— from her bed to the floor, that a fresh bed might be made for her. The quantity of blood was described as enormous.

Much relief of the stomach and lungs followed the opiate, which was repeated as indicated. The relief was expressed after a manner not to allow any question of its reality; and when resorted to afterwards, was alike salutary. I had in view what Stuart says in his monagraph, printed some time ago, of the beneficial uses of opium in uncomplicated uterine hæmorrhage, though I did not give it in as full doses as does he. At times he gave as many as 80 drops at a dose, and repeated it if necessary, and never with any ill effects. My friend Dr. Bartlett, of New Bedford, in a conversation on the medicinal properties of opium, said he had found a combination of the bicarbonate of soda with it very useful in preventing some of the uncomfortable effects of this narcotic. Among these he mentioned headache, nausea, &c. I have frequently used this combination, and did so in the case of Mrs. ——. The hæmorrhage—or leak, which it had become—was at length checked. Of this, Mrs. —— was soon aware. Every physician must have observed how sensitive women sometimes are about the passage of blood over the limbs in these cases. It is its comparative warmth, probably, which makes them aware of this. This sensitiveness is sometimes met with in a degree to disturb the physician who is not aware of its power, for a very few drops will lead to the words, "I am flowing"—words most unmusical to the medical ear. Mrs. —— was not disturbed by this occurrence. I told her that the ice would melt, and the warm water produced might imitate flowing. She did not refer to this occurrence I think more than twice during the many hours I remained with her.

The pulse continued to be uncertain. Sometimes it was to be felt in both wrists, but always with most distinctness in the right wrist. It was often wanting in the left, sometimes in the right. It was never *frequent*. This I deemed a very promising fact in its pathological bearings. The heart was acting feebly under the loss of a large amount of its great and important stimulus; but it acted *regularly*, whenever it could be detected in the artery. Stimulants, especially brandy, were always followed by return of the pulse, and increase of its force. The stomach-sinking was also relieved. "That goes to the right spot," was the language which expressed the relief. At times a large quantity of wind was afterwards discharged from the stomach.

Sleep had, as we have said, been disturbed for four nights just preceding labor. When quiet came, as it did from opium, sleep came with it. It was profound, with heavy snoring, and full puffing in expiration. These last attracted attention. Mr. —— was applied to, and he said this kind of sleep was natural. At times they were so disturbing that sleep was broken to stop them. The soundness of the sleep to-night might be owing to the long-continued previous watchfulness. At midnight I retired, after having carefully instructed the night attendants as to their duties, and after directing them to call me if anything occurred concerning which my advice might be necessary.

25th. Between 6 and 7, I saw Mrs. ——, and learned that the night had been comfortable. There had been no noticeable hæmorrhage, and sleep had been less labored. The pulse continued feeble, and at times disappeared, but some food or other stimulants brought it back as before. The bandage, compress, &c. were removed, and no evidence of recent hæmorrhage discovered. (Speaking of stimulants, a mixture of tincture of cinnamon and cinchona was given. A medical friend suggested this to me many years ago in such cases, and I have often usefully employed it since.) The womb was smaller, and less tender. There had been no urine recently, and a large quantity was drawn by the catheter, with the customary relief.

5, P.M. But little gain since morning, the pulse being still uncertain. Mrs. —— said her nurses had given her less nourishment than she felt she needed. Stimulants were freely given, with much relief from the sinking feeling; and directions as to quantities and times, as before, were insisted upon. It was clear that Mrs. —— knew when she had enough, and was a better judge of this than were her attendants.

26th. Mrs. —— not so well. Hæmorrhage returned at midnight, and continues. Pulse as before, at times felt, feeble, but still slow, about 75 per minute. Extremities cooler than before—manner of exhaustion. Stimulants—tampon and T bandage compression. Fluid extract of ergot every two hours, and two teaspoonsful of brandy every half hour till reaction. If uterine action, with bearing down, remove pressure from external organs. Mrs. —— was seen twice in the forenoon, and again at 5 P.M. Fluid extract vomited, as have been all other ingesta. At this visit, more favorable report. Uterine action had occurred, and a cylindrical mass, several inches in length, and one inch in diameter, had been expelled. Its surface was light colored, mottled, smooth—very firm—requiring much force to cut through it, in direction of its length. Internal surfaces of the section black—uniform—exactly resembling blood which had been very forcibly compressed. It was at first thought to be the placenta, and was found to be so after a later examination. The fœtor of decomposition was strongly declared. Great relief had followed the expulsion of this mass. Hæmorrhage had ceased at once. The uterine tumor had nearly disappeared, and the abdominal walls were soft and flaccid. Strong eructation had followed the three doses of the fluid extract, and with these the extract was thrown out of the stomach, as declared by its taste. I was called to see Mrs. —— at midnight, as it was supposed she was dying. No signs of dying were present. She was restless—had not slept—and was as uncomfortable as she well could be. The solution of sulphas morphiæ, which had been usefully exhibited before, was now given, and brandy and water as before, and she soon became calm. The solution was to be repeated as previously. Was called again at 6, A.M., the 27th, but found no cause for alarm.

27th, 5, P.M. Mrs. —— is much as before in regard to pulse, but the day, upon the whole, had been a tolerably comfortable one. Liquids of all kinds, except cold water, were rejected, as in fact they have been during most of the disease, and in the same manner, by eructations. A strong desire was expressed for some kind of solid food, as it would produce less flatus than liquids, and in very small quantities would answer a better purpose. Bread was asked for, and the request granted.

28th. Called early. Mrs. —— delirious all night, making violent efforts to spring out of bed.—No sleep, and no pulse. Lower limbs cold. Head hot. Easier than in the night. A teaspoonful of solution, with directions to repeat if necessary. Called again about noon. Lost sight; soon after I left, she calling for a lamp. Dozed, and then fell into a sound sleep, soon accompanied by stertor. Draws up right lower limb, and straightens it again in a perfectly natural manner. Carries right arm over the head, resting it on the back of it, a common position in health both when awake and asleep—then placing it along her side. Left side motionless. No pulse. Surface colder. She sunk gradually, and died without any convulsive or other movement.

A word of managing the afterbirth. Different rules. One—and Denman's, I believe—says wait an hour after the child's birth before interfering. Others recommend a less delay. I knew a physician, now dead, who never waited, but at once proceeded to deliver. If nothing occurs to demand interference, it is better to wait for uterine action, and to solicit action by pressure and friction over the uterine tumor. But contractions may occur, quite as severe as during labor, and the afterbirth does not advance. Examine the uterine tumor; especially ascertain if displacement exist—inversion, for instance, or hour-glass contraction. Examine per vaginam, to learn the state of the os uteri—following the guidance of the cord. If the placenta be still in the womb, and the cord seem to spring from its centre, then pass a finger to its nearest edge, and bring it gently down—when sufficiently advanced, draw alternately by it and the placenta, and if no morbid adhesion exist, it will soon advance and be delivered. I have seen a case in which much embarrassment was felt, as the placenta did not advance with such force as seemed sufficient and safe. In this, the above method was successfully adopted. Suppose the placenta be not within reach, wait, unless hæmorrhage occur. If this come on, or is present, pass the hand and learn what is the cause of delay. Hæmorrhage depending only upon separation, learn where this exists, and make further separation in its direction, if this can be done.

Remarks.—The placenta is occasionally retained in consequence of adhesions, which all safe efforts for separation and removal cannot or do not overcome. Sometimes it disappears—at least no portion of it is discerned, though carefully looked for. I have met with one such case. This patient did perfectly well, and afterwards had a child without accident. I saw, in consultation, a case of retained placenta between two and three weeks after the child was born. The womb was found as high as before labor, its fundus resting at the epigastrium. It was cylindrical in form. Examination found the lower end of the placenta protruding somewhat from the os uteri. I drew it slowly away. No hæmorrhage. In shape it was perfectly cylindrical, and more than twelve inches in length. It was grayish in color, or mottled, dark and white. It was not decomposed. Mrs. ——, who was very ill, with the severest symptoms of metritis, and peritonitis, died a few days after my visit. Examination discovered an abscess in the uterine substance, in the fundus, and at its upper portion; and a perforation in its centre through which pus had passed into the peritoneal cavity.

I have seen another case of chronic placentary adhesion, in which the uterine substance had given way, and upon examination after death a portion of the placenta was found protruding, and lying broadly upon the peritoneal surface of the fundus uteri. Mr. Murdock, of Edinburgh, published, several years ago, a report of a case of retained placentas, for his patient had twins. The placentas and membranes were retained six weeks, during the whole of which time a solution of alum was injected into the womb; not on account of hæmorrhage (for there was none), but to prevent decomposition. When the placentas came away they were found to be as perfectly preserved as in any other well-made preparation.

It is asked, "Why was not the placenta removed in Mrs.—-'s case?" The question is pertinent. In answer, it may be said that it was stated the placenta had been removed by Miss or Mrs. ——, the alleged midwife. It had been drawn away with violence, and intense suffering; and, as was added, because Miss or Mrs. had on hand another case of labor. What this violence in degree was, may be inferred from the small but long, very hard, cylindrical mass which was ultimately expelled from the womb. It was but a small portion of the placenta, and had evidently been left in the hurry, and the force used for the removal of the organ, by the pre-engaged attendant. Attempts for the forcible removal of what was not supposed to be in the womb, under the circumstances of the patient, were abandoned as wholly contra-indicated. Mrs. —— was often so low, that the smallest increased annoyance must have been fatal. Clear reaction had in no sense occurred. The same constitutional symptoms were always present, or improvement was too slight and too transient to be depended upon. Then the exquisite tenderness of the os uteri made manipulation not only dangerous but absolutely cruel. Mrs. —— was bearing with so much heroism—patience—absence of complaint, her heavy load of disease and suffering, that to add to it in any way, was forbidden. Then the close contraction of the os uteri—its hardness, and the hardness of the cervix, added force to the conviction that mechanical interference could do nothing but injury. These are the facts in this case, which, to the writer, put interference out of the question.

ON CATARACT.—No. III.

[Continued from page 137.]

THE most favorable case of remnants of the lens, is when the cortical substance forming its edge remains behind in the fold between the anterior and posterior capsule in the shape of a ring, more or less entire, and is shut off from the influence of the aqueous by the union of the relics of the anterior capsule with the posterior. There remains what has been observed after death in many who have been successfully operated on, and which has been described as "krystall wulst," and looked upon erroneously as reproduced lenticular substance. Less favorable is the case when the cortical substance forms a broader mass more or less extensive, and prevents, in some degree, the remnants of the capsule from withdrawing out of the region of the pupil, and presents a kind of secondary cataract. In these cases, generally, iritis follows, and in consequence union between the anterior capsule and the edge of the pupil, or even the entire closure of the pupil. Such uniting of the capsule to the edge of the pupil occurs very easily after extraction, often without any considerable symptoms of inflammation; consequently, it is very advisable, after taking off the bandage, to keep the pupil constantly, for from eight to fourteen days, somewhat dilated.

Although iritis involves the danger of partial or complete closure of the pupil, yet it may, by promoting the closing up of the opening in the capsule, preserve the eye from further swelling of the remnants of the lens and their deleterious consequences.

When larger pieces of lens have been left behind the iris opposite the corneal flap, or have been carried there by the aqueous flowing off from time to time, shortly after the operation, they may prevent permanent closure of the wound and union by first intention, and cause general inflammation with suppuration.

Generally, we hear only "suppuration of the cornea" spoken of. The process, however, needs a more careful examination. For in such cases it is not merely with suppuration of the cornea that we have to do; there is besides something else more important. It is not yet determined whether the destruction of the flap takes place in consequence of deficient nutrition, or, what Arlt thinks more correct, because, owing to the bursting open of the corneal wound, there is developed irido-chorioiditis, with purulent exudation in the anterior chamber, and in the vitreous. Arlt has, for instance, observed that quite a similar condition of the cornea may occur also after simple puncturing of it, with iridectomy following.

When we observe early an eye in which this uncontrollable process has begun, it is not found that the corneal wound is open, and not even that the anterior chamber is obliterated, but purulent exudation lies at the periphery of the chamber, either merely behind the flap or also behind the other half of the cornea.

It has been established by various observations that when the pressure, either normal or increased, which the vessels of the eye sustain from the tension of the globe, is suddenly removed, irido-chorioiditis, with purulent exudation into the ocular cavities, may ensue.

It sometimes happens that the corneal flap becomes only cloudy and dull, while the other signs of irido-chorioiditis, with purulent exudation, are more pronounced, and finally give place to signs of the diminution of the size of the globe. Gradually, too, the cornea also shrinks, becomes smaller, clear, and wrinkled.

This saddest of all results may also be occasioned by other causes, especially by the bursting of the wound from external violence; but Arlt thinks that carefully tested observations justify the opinion that remnants of the lens of themselves are sometimes sufficient to account for it.

In many cases, the mass of exudation which unites the wound is merely distended by the increase of intraocular pressure from remnants of the lens, though generally the signs of slight iritis are also present. This distension may increase so as to form a somewhat cylindrical, hyaline, soft projection along the whole or a part of the wound.

Oftener the iris is pressed into the wound, after partial bursting of the latter; a prolapse of the iris is found, occupying more or less of the wound, and covered with the hyaline (cornea-like) mass, which at first served to unite the edges of the wound, but now sometimes increases abnormally, and causes the prolapse to appear farther forward than it really is.

Arlt has repeatedly, in cases of considerable prolapse, found remnants of lens after removing the summit; and in recent years two cases have occurred at the clinic, in which lenticular substance directly behind or near the prolapse was pressed forward and gradually cast off.

Generally, cases with prolapsed iris result favorably if left to themselves, and sufficient quiet is allowed to the mass covering the iris in order to contract, and so gradually to push back the iris. Only in case of constant irritation from friction against the edge of the lid, of persistent deep redness of the neighboring sclerotica, or when the prolapse is so great that it appears narrower at the base, as if constricted, Arlt recommends removal or repeated puncturing. The bend of the cornea, which at first disturbs vision so much, gradually disappears without permanent bad effect. In general, the pupil, though drawn towards the wound, becomes remarkably clear, free from every trace of the cataract. Yet in cases of very great prolapse, the pupil easily gets quite closed; and then, when subsequently recourse is had to iridectomy, there is found stretched out behind the iris a turbid, more or less thick and rigid diaphragm, which entirely frustrates the effect of the iridectomy.

We have thus far considered those injurious consequences which may be induced by the swelling up of remnants of the lens. The question, however, occurs, whether injury may not accrue from them to the eye in some other way; for instance, from chemical or mere mechanical irritation of the iris and cornea. It must be granted that the lenticular substance may possibly react quite differently when out of the capsule from what it would when enclosed in the capsule. After the operation of discision, if small particles of the lens have passed through the pupil into the fold between the iris and cornea, partial redness of the neighboring part of the sclerotic with symptoms of general irritation (photophobia, lachrymation, often also pain) ensue, and do not cease till after the absorption of the piece of lens. Why should not the same thing take place also from remnants of lens after extraction?

In cases of over ripe cataracts, those in which the lens is wholly or partially broken down and changed into a milky fluid, Arlt has repeatedly noticed an unsuccessful result without finding other cause than that perhaps some of the milky fluid or of the globules suspended in it remained behind, and induced inflammation of the iris or of the iris and choroid. This supposition led him recently, after extraction of such a cataract, before putting on the bandage, to drop some tepid water between the lids. This case progressed very favorably. Further trials must decide it.

[To be continued.]

REPORT OF THE COMMITTEE OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY, ON THE SUBJECT OF SUSPENDED ANIMATION.

THE inquiry was conducted—

By means of experiments upon living animals;

By means of experiments upon the dead human body.

In investigating anew the subject of apnœa by means of experiments on the lower animals, it seemed expedient to observe, in the first place, the principal phenomena of apnœa in its least complicated form—namely, when produced by simply depriving the animal of air.

The principal facts to which attention was directed during the progress of the apnœa thus induced were—

The duration of the respiratory movements;

The duration of the heart's action.

The duration of the heart's action was observed—

(*a*) In relation to the duration of the respiratory movements.

(*b*) In relation to the time after the stoppage of the breathing.

From the experiments performed it appeared that in the dog, the average duration of the respiratory movements after the animal has been deprived of air is 4 min. 5 sec., the extremes being 3 min. 30 sec. and 4 min. 40 sec. The average duration of the heart's action is 7 min. 11 sec., the extremes being 6 min. 40 sec. and 7 min. 45 seconds.

From these experiments it appears that on an average the heart's action continues for 3 min. 15 sec. after the animal has ceased to make respiratory efforts, the extremes being 2 min. and 4 min. respectively.

Rabbits on an average ceased to make respiratory efforts in 3 min. 25 sec. Their heart's action stopped in 7 min. 10 sec.; consequently the interval between the last respiratory effort and the cessation of the heart's action was 3 min. 45 sec.

The next question investigated was—the period after the simple deprivation of air at which recovery is possible, under natural circumstances, without the aid of any artificial means of resuscitation.

The experiments performed led to the conclusion that a dog may be deprived of air during 3 min. 50 sec., and afterwards recover without the aid of artificial means; that a dog is not likely to recover, if left to itself, after having been deprived of air during 4 min. 10 sec.

The force of the inspiratory efforts during apnœa was observed in the experiments to be so great that it was determined to measure them. They were found to be capable, in the dog, of raising a column of mercury four inches. It appeared, moreover, that their force increases up to a certain period.

In other experiments, plaster of Paris, and even mercury, were thus drawn upwards into the minute bronchial tubes.

It is easy to understand, therefore, how foreign bodies may be drawn into the lungs in cases of drowning, and the importance of this fact in the consideration of the pathology and treatment of apnœa.

The Committee next passed on to the subject of drowning.

The first question investigated was—For what period can an animal be submerged, and yet recover without the aid of artificial means?

It was found as the result of numerous experiments on dogs that, in striking contrast to the previous ones, 1½ minute's immersion in water suffices to destroy life.

Other experiments satisfactorily showed that the difference of time between simple apnœa and that by drowning is not due to submersion, or to depression of temperature, or to struggling, but that it is connected with the fact, that in the one case a free passage of air out of the lungs, and of water into them, is permitted; in the other, the exit of air and the entrance of water are prevented.

There can be no doubt, from other considerations put forward, that although both these circumstances are concerned in producing the difference observed, yet that it is mainly due to the entrance of water and the effects thereby produced.

The treatment of apnœa was next considered.

For conclusions respecting artificial respiration, the Committee refer to the second portion of the Report.

Many other methods of resuscitation which have been recommended were employed, including actual cautery, venesection, cold splash, alternate application of hot and cold water, galvanism, puncture of the diaphragm.

Although some of the above means were occasionally of manifest advantage, no one was of such unequivocal efficacy in a sufficient number of cases as to warrant the Committee in specially recommending its adoption.

The experiments upon the dead subject were made with a view to determine the value of the various methods which have been employed for alternately compressing and expanding the cavity of the chest in such a manner as to imitate the natural movements of the thoracic walls in breathing. The following methods have been investigated:—

1. Pressure exerted by the hands on the anterior wall of the thorax, the body being in the prone posture. Such pressure has for its object, to expel a portion of the air contained in the chest; on relaxing the pressure, the chest expands and air enters.

2. The postural, or so-called "ready" method, described by Dr. Marshall Hall, consists essentially in "turning the body gently on the side and a little beyond, and then briskly on the face alternately;" and in making pressure along the back of the chest each time the body is brought into the prone position.

3. The method of Dr. Silvester, in which the action of the pectoral and other muscles passing from the shoulders to the parietes of the chest in deep inspiration is imitated. An inspiratory effort is produced by extending the arms upwards by the sides of the head; on restoring them to their original position by the side of the body, the expanded walls are allowed to resume their previous state, and expiration takes place, the quantity of air expelled being in proportion to that which had been previously inspired.

It being necessary to measure the flow of air in and out of the respiratory cavity under conditions of pressure closely resembling those which exist in natural respiration, no means of measurement could be used, which, in its working, would offer any appreciable resistance to the passage of air. With this consideration in view, an instrument designed by Dr. Sanderson was employed.

GENERAL RESULTS.

1. As regards the volume of air which can be expelled from the thorax by compression of its walls, and inspired by the elastic expansion consequent on relaxation of the pressure, it was found—

(*a*) That pressure by both hands on the lower third of the sternum in the adult male subject usually displaced from 8 to 10 inches of air.

The pressure actually exerted amounted to about 30 lbs. It was, therefore, not greater than might be safely applied to the living subject. The volume of air expelled varied from 8 cubic inches to 15 cubic inches.

(*b*) That pressure made in the same manner on the upper part of the sternum usually displaced 2 or 3 cubic inches less than pressure on the lower part.

(*c*) That pressure exerted by one hand on the upper part, by the other on the lower part of the sternum, produced about the same results as were observed in *a*.

In this case the whole amount of pressure did not exceed that exerted in *a*.

(*d*) That the pressure of a weight laid on the lower third of the sternum produced similar results according to its amount.

(*e*) That lateral pressure exerted on the ribs or costal cartilages of both sides simultaneously was in no instance more effectual.

(*f*) That compression by a broad bandage encircling the chest, the ends of which were crossed over the sternum, and drawn in opposite directions by two persons, produced no greater effect than pressure with the hands on the sternum or sides.

2. As regards the whole amount of exchange of air produced by the method of Dr. Marshall Hall, "to imitate respiration," it varied much, according as the subject was favorable or the contrary; sometimes not exceeding a few cubic inches, but never exceeding 15 cubic inches.

3. As regards Dr. Silvester's method, it was found, that on extending the arms upwards, a volume of air was inspired into the chest, which varied, in different subjects, from 9 to 44 cubic inches, and it was observed that the results obtained in successful experiments on the same body were remarkably uniform, in which respect, as well as in their amount, they contrasted with those obtained by the method of Dr. M. Hall. On restoring the arms to the side, the quantity of air expelled was generally nearly equal to that previously inspired, occasionally less.

In the treatment of apnœa generally, the Committee offer the following suggestions:—

That all obstruction to the passage of air to and from the lungs be at once, so far as is practicable, removed;—that the mouth and nostrils, for example, be cleansed from all foreign matters or adhering mucus.

That in the absence of natural respiration, artificial respiration by Dr. Silvester's plan be forthwith employed in the following manner:—The body being laid on its back (either on a flat surface, or, better, on a plane inclined a little from the feet upwards), a firm cushion or some similar support should be placed under the shoulders, the head being kept on a line with the trunk. The tongue should be drawn forward so as to project a little from the side of the mouth. Then the arms should be drawn upwards until they nearly meet above the head (the operator grasping them just above the elbows), and then at once lowered and replaced at the side. This should be immediately followed by moderate pressure with both hands upon the lower part of the sternum. This process is to be repeated twelve or fourteen times in the minute.

That if no natural respiratory efforts supervene, a dash of hot water (120° Fahr.) or cold water be employed, for the purpose of exciting respiratory efforts.

That the temperature of the body be maintained by friction, warm blankets, the warm bath, &c.

In the case of drowning, in addition to the foregoing suggestions, the following plan may be in the first instance practised:—Place the body with the face downwards, and hanging a little over the edge of a table, shutter, or board, raised to an angle of about thirty degrees, so that the head may be lower than the feet. Open the mouth and draw the tongue forward. Keep the body in this posture for a few seconds, or a little longer if fluid escapes. The escape of fluid may be assisted by pressing once or twice upon the back.

(Signed by the Committee of eight. C. J. B. Williams, Chairman.]

Dr. C. J. B. Williams said, that if the subject of suspended animation and its treatment appeared to be one of the greatest importance when the Committee were appointed for its investigation, the result of their labors did not make it less so; for during their researches several new points of both physiological and practical interest had arrested their attention. The Report just read contained a large mass of facts bearing on the subject, and these facts would be fully appreciated when they should be maturely considered; but the members of the Committee thought it might be acceptable to the Society if one of their body were to give a short summary of some of the most striking results. He (Dr. Williams) had been requested to do this since he entered the room, and not having been previously aware of the office which would devolve on him, he was not prepared to go fully into details; but he believed that he was sufficiently acquainted with the general results of the experiments to be enabled to give a summary of their most important features. He would premise that he could take no merit to himself with regard to the experiments which had been so ingeniously devised and laboriously carried on by other members of the Committee. He had been present at very few of the experiments themselves; but, as chairman of the Committee, had merely assisted in receiving and completing the reports from the sub-committees. The Committee, having to consider the subject of "Suspended Animation," directed their inquiries to that kind of interference with life which results from stoppage of the breath in suffocation, strangulation, and drowning. The first series of experiments was to investigate the result of simple apnœa, or stoppage of the breath; and for this purpose the trachea of animals was opened, and a tube inserted so as to command the supply of air; and this tube being furnished with a stop-cock could be closed, and the results noted, especially these:—After the closure of the tube, 1, how long respiratory efforts continue; 2, how long the heart's action continues; 3, how long the heart beats after the breathing efforts cease. The experiments show a considerable variety of result; but, as a general average, it may be stated that in dogs efforts at breathing continued a few seconds more than four minutes after the closure of the tube; and the heart's action three minutes and a quarter longer. The duration and force of these respiratory efforts, in an animal deprived of air, were not more remarkable than important as indicating the period within which an animal deprived of air could recover; and this was found to be almost, but not quite, as long as the duration of these efforts—that is to say, a dog deprived of air four minutes only, would recover; but if the exclusion of air lasted ten seconds longer, he did not recover. The extraordinary force of these struggles for breath was shown by plunging the end of the tube into mercury; when it was found that the inspiratory effort sometimes raised a column of four inches of mercury, and, if the tube was shorter, would draw the quicksilver in considerable quantities into the bronchial tubes and air-cells of the lungs.

The next subject of investigation was suspended animation from drowning; and here the experimenters soon found a remarkable difference in the greater rapidity of the death, and the shorter time during which life is recoverable. An animal simply deprived of air for four minutes may recover; but one immersed in water for one minute and a half is irrecoverably dead. Recovery took place in several cases where the immersion lasted one minute and fifteen seconds; but fifteen seconds more made all the difference. The experimenters proceeded to search into the cause of this peculiarly destructive operation of drowning, as compared with simple privation of air; and very soon they were enabled to trace it to the action of the water itself, forcibly drawn into the lungs by the respiratory struggles of the animal. Two dogs were plunged into water, one having its trachea closed by a stop-cock at the moment of immersion. The dog with the trachea free was taken out in two minutes, irrecoverably dead. The other, with the trachea closed, was taken out at the end of four minutes; the trachea was opened, and in the course of a few seconds the animal began to gasp, and soon recovered. Another mode of diminishing the inspiratory struggles of the animal was by stupefying it with chloroform before immersion in water, and it was actually found that recovery took place after two minutes and fifteen seconds' immersion. On this point he (Dr. Williams) adverted to a popular opinion, that it was more difficult to drown a drunken man than one who is sober, as having some foundation on this fact, that insensibility of any kind retards the fatal influence of drowning by diminishing those violent struggles for breath which, by forcing water into the lungs, soon put the case beyond recovery. But nothing so fully pointed out the extent and nature of the fatal influence of water in the lungs as the appearance of these organs in drowned animals as compared with those killed by simple apnœa. In the latter the air-passages remained free from all secretion or effusion, and the lungs themselves were light and buoyant, and contained remarkably little blood. Now this is contrary to what is generally described as the state of the lungs in asphyxia: and probably in ordinary cases, where death is not sudden, but prolonged, more or less engorgement may take place. But here there was no engorgement or obstruction, and it is not wonderful that animals would recover more readily. But with drowned animals not only were all the air-passages choked with frothy fluid, and that fluid generally more or less bloody, but the whole lungs were always highly engorged with blood, so that they were heavy, dark-colored, pitted on pressure, and on being cut, exuded an abundance of blood-tinged fluid with many air-bubbles in it. On this subject he would make two remarks on his own responsibility, apart from his office in the Committee. One was, How opposed these observations and conclusions are to those many years ago propounded by Goodwyn in his treatise on Suspended Animation, whose opinions have generally been adopted to the present time. Goodwyn concluded from his observations, that water never to a hurtful extent enters the lungs of the drowned, and he deprecated the popular practice of hanging up a drowned person by the heels to let the water run out. He (Dr. Williams) was by no means sure that, as Dr. Goodwyn was certainly wrong in his pathology, some modification of the popular practice may not be beneficial. The other remark related to the mode in which the water which got into the lungs of the drowned proved so rapidly and extensively injurious. No doubt much was due to its mechanical pressure on the tubes and cells, forming an impervious barrier to the readmission of air; but this would not account for the extraordinary increase of blood in the lung, and its transudation into the air-tubes. He believed the injurious influence of water to be due to its chemical power of acting by endosmosis on the blood within the capillaries of the lungs, swelling up and bursting the blood-corpuscles, and causing their rapid accumulation in the organ, and their extravasation into the bronchial tubes. This was a subject for further experimental investigation, and he thought it one of great importance, as bearing on the action of water as a noxious or a therapeutic agent. He would not detail the various means of resuscitation which were tried by the Committee, but the results of the trials were not such as to induce the Committee to recommend them strongly for general adoption. Various instructive experiments were made on different modes of performing artificial respiration, and the most conclusive of these had reference to the so-called "ready methods" of Dr. Marshall Hall and Dr. Silvester. One of their Committee (Dr. Sanderson) contrived the apparatus on the table for measuring the air which could be forced out of it into the lungs of a dead body by these methods of artificial respiration; and the general result was, that by Dr. Hall's method the quantity of air moved in and out of the lungs rarely reached nine cubic inches, and never exceeded fifteen; whereas by Dr. Silvester's plan an interchange of forty cubic inches was effected; and when this method was further improved by alternating the drawing up of the arms, with depressing them, and with pressure on the lower part of the sternum, the expelled air was as much as fifty cubic inches. So far, then, as these experiments go, they show a great superiority of Dr. Silvester's over Dr. Marshall Hall's "ready method."

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, SEPTEMBER 25, 1862.

The following communication relates to a matter of such pressing importance, that we depart from the usual order of our Journal to give it immediate publication. We trust that it may receive from the medical profession, and the community at large, that high consideration to which the source from which it proceeds entitles it.

At a meeting of the Boston Society for Medical Improvement, held Sept. 22, 1862, Dr. Bowditch remarked as follows:—

"I desire to bring before the Society a subject of great importance to the future welfare of our wounded soldiers; although, at first sight, it may not seem exactly appropriate for a meeting of this Society.

"During my recent visit to Washington with other physicians, summoned there by the Secretary of War, I was brought immediately in contact with the abominable system, or rather no system, of ambulances now in use in our army. The atrocities I saw committed, are, I think, a sufficient reason for bringing the subject before you, in order that, either by the individual effort of the members or by the united action of the Society, public opinion may be made so strong as to force the Government to devise some plan more in accordance with common humanity, and more truly military in its discipline.

"On the evening of Friday, Sept. 5, at the request of the Surgeon-General, I joined an ambulance train that was just starting to go to the relief of our starving and wounded men near Centreville. There was a train of fifty carriages. I subsequently learned that three of the drivers, afraid of entering the enemy's lines, escaped with their ambulance wagons, before we reached Long Bridge. This was easily accomplished, as there was no escort, and, as it subsequently appeared, no power to prevent such an event. It is true that an army surgeon accompanied and gave general direction to the train, but he was on the first wagon, and could not know what was doing towards the end of the long train. I soon perceived that the drivers were men of the lowest character, evidently taken from the vilest purlieus of Washington, merely as common drivers, and for no other qualification. Their oaths were flaunted forth without the least regard to the presence of superiors, and with a profusion that was really remarkable even in the vicinity of Washington. The driver of my ambulance became sleepy as the night wore on, and as his zigzag course, over a Virginia road, was rather perilous, and as he informed me that he had been overturned a few weeks previously, I thought it more prudent to drive myself, rather than to allow him to do so. While the moon was up, this was comparatively easy. He accordingly slept *inside of the carriage* until 3 or 4. A. M. He then reluctantly again took the reins, because I was unwilling, owing to the darkness, to drive farther. His whole deportment during the night showed a disregard for everything save his own comfort.

"Early in the forenoon, however, appeared on the part of the drivers of nearly one half the train a total want of discipline, and a forgetfulness of the object and character of our mission that seemed to me atrocious. Suddenly I perceived one half of the train was stopping, and all the drivers, leaving their carriages, rushed into an adjacent field, and there spent some minutes in stoning and shaking the trees in an apple and peach orchard; and all this in the presence of part of the family of a Virginia planter! These individuals made no resistance. They apparently thought it would be of no use, for over all this road had the two armies swept again and again. In vain I pleaded that we were breaking the sacredness of the flag of truce—that we richly deserved death for thus plundering private property. In vain I urged the inhumanity of leaving our suffering, starving soldiers, in order to fill their own greedy stomachs. I appealed to one of the three leaders who rode on horseback, and pretended to be the leader of the train. He only smiled a smile of ineffable contempt, and munched his stolen apple with perfect *nonchalance*. Meanwhile the flag of truce was lost afar off in the distance, and our party was obliged to drive for some time with great rapidity in order to overtake it. Just as my carriage started, a heavy stone struck it not very far from my head. It had evidently been hurled and *justly hurled* at us for our infamous conduct. I remarked that hereafter I should know why our ambulances were fired upon by the enemy. The only answer I obtained was an oath.

"About mid-day we arrived, and found our men in a most piteous condition, lying every where, inside and outside of every building connected with a small farm house. The negro quarters was a palace, the manure heap was a soft bed. The fairest place was under a wide-spreading tree. I found the drivers did not feel it to be their duty to help the sufferers, but sulked or swore or laughed, as it pleased each. On the following morning, it is true, I did persuade my own driver to bring to me water, as I was dressing the wounds of the soldiers, but it was difficult even to get that, and he aided me because I asked him to do so, and not because he had any heart in the work.

"On Saturday, P.M., we started for Washington—all the sick having been arranged in different ambulances under charge of various surgeons. That night I shall never forget. I had taken one of those most severely wounded under my own special charge. The ball had passed into his chest and caused intense difficulty of breathing. He was a German, and one of the most uncomplaining of sufferers—and his broken words of gratitude for the slightest token of kindness were most touching. None but a brute could have failed to be kind to him. He could lie only on one side, and consequently his head was placed directly behind my driver. During the first part of the way I did not think that the driver paid the least attention to the road with reference to the comfort of the patient. In early night his tongue ran glibly on, in loud indifferent talk or the vilest profanity—thus preventing all sleep. As the night progressed, I was distressed to find that the whiskey with which he probably had supplied himself was having its usual soporific effect, and he fell back upon the panting form of my patient. I lifted him up, and told him I could not allow such treatment of the sick man. The only response I got was a muttered oath of "men complaining," &c. But it was all in vain; again and again did he fall back, until at last I took the reins and drove most of the night with one hand, while with the other I supported this snoring drunkard!

"Of course, I repeated all these facts in a letter to the Surgeon-General. He assured me that I could not tell him anything new—that he had months since foretold to the Secretary of War the horrors that would occur with such a set of wretches, as usually were found in a body of ambulance drivers—that he had vainly endeavored to obtain *some system*, but there was none now. The whole of the ambulances are under the Quartermaster's department. He (the Surgeon-General) had not the control of a single carriage. All his efforts had been in vain.

"I want now," continued Dr. Bowditch, "through this Society, to create a public sentiment that will compel the Government to attend to this matter, and to have a real ambulance corps. Dr. Hammond (the Surgeon-General) is not wedded to any plan—but he has suggested the appointment of six ambulances to each regiment, and three men to each ambulance—viz., one driver and two assistants. The latter would take the wounded in a careful, methodical manner, from the field. This would prevent, in some measure, the soldiers from leaving their ranks, and would likewise be more humane for the wounded. All the corps would be under strict military discipline. But I repeat, all that is desired is that *some* plan be adopted. Now all is chaos. I make no motion on this matter, but leave these facts before the Society, hoping that they will, in some way, tend to relieve our suffering soldiers."

Dr. J. MASON WARREN moved that Dr. Bowditch be requested to reduce his remarks to writing, and that the facts be laid before the public in the journals of the day.

Dr. H. W. WILLIAMS moved that Dr. Bowditch be a Committee to report some plan of address to the Secretary of War, to be sent by the Physicians of Massachusetts, in furtherance of some plan for the establishment of a United States Ambulance Corps.

FRANCIS MINOT, *Sec'y.* S. L. ABBOT, *Chairman of Meeting.*

POLICE EXEMPTS FROM MILITARY DUTY — ACTION OF THE BOARD OF ALDERMEN.—We notice that the Board of Aldermen have passed a resolution, that any policeman obtaining a certificate of exemption from enrolment for military duty is unfit for service in the police. We cannot but regard this decision as hasty, unwise, and in many cases most unjust. We speak from positive knowledge when we say that a policeman may in various ways be unfit for military duty, under the regulations of the United States service, and yet be every way competent to act in his civil capacity. For instance, a police officer may be wanting in a good set of teeth, he may have a hernia which is kept up by wearing a truss, or he may have varicose veins which he is able to support sufficiently well by means of a laced stocking, or he may have anchylosis or contraction, or mutilation of one or more of his fingers—and we might go on and enumerate many more slight defects, which are very serious objections to a man's entering the army, and yet do not at all interfere with a faithful performance of his duties in the service of the city. All such men, according to the action of the City Government, must be discarded or run the risk of being drafted and making incompetent soldiers. This is certainly wrong. Each case should be judged on its own merits. If a man fails in the performance of his duties by reason of bodily defects, by all means replace him with another more able, for we want none but competent public servants; but it is only a gratuitous act of cruelty to eject a faithful officer for no other reason than the general fact that he has obtained a certificate of exemption from military duty. It should be remembered that any disability from bodily infirmity which withdraws an officer from duty throws him upon his own resources; he does not become a public charge, as a disabled soldier does. We sincerely hope the City Government will recede from the position which it has, as we think, most unadvisedly taken.

Lumbar Abscess again.—*Mr. Editor,*—In writing the account of a lumbar abscess published in your issue of the 18th instant—last week, I desired to be brief. I am very sorry to find that by being so, I was exposing myself to such unpleasant criticisms.

I am not altogether unfamiliar with the diagnosis and the phenomena usually attending these abscesses, nor with the writings of Abernethy and other eminent authors in regard to them. I well know that the early opening in this case was not in accordance with their teachings, and for that reason was led to invite the attention of my professional brethren to the happy results attending and following it. I well know, too, that the symptoms in this case were somewhat unusually acute, but it did not occur to me that any one could call in question the propriety of calling so large an abscess, situated where that was, a "lumbar abscess," notwithstanding the well-known prevalent opinion among surgeons, of late years, that these abscesses are always connected with caries of some portion of the spinal column.

Whether in this case there was any actual caries, I have ever had much doubt, but have never doubted that if the pus had been allowed to work its own way to near the surface, the patient would have sunk with all the symptoms usually attending such cases, including the accustomed degeneration of the pus. I might here add, that, from some pains extending their way down into the internal iliac region, and other symptoms which the patient began to complain of, and from the great depth and the texture of the parietes over the tumor, I feel quite sure that the pus would have worked its way down along the psoas muscle if it had not been for the early opening.

Nor did it occur to me that in making a statement of facts to scientific men it was necessary to say *expressly* that the puncture was made over the central part of the tumor and directly towards its centre; nor that it was necessary to say *expressly* that the depth to which the instrument penetrated before reaching the pus was *not* left to the imagination at all, but was made a matter of the most careful measurement, and noted at the time. I will now add that I subsequently reassured myself of the correctness of my first measurement, by the careful introduction of a silver probe and other instruments. It could not have been more than one eighth of an inch less than three inches. I will also here state that on carefully introducing a silver probe, and after that a grooved director from my pocket case, I found them to enter *four and three fourths inches* before reaching the deepest—the most distal side of the sac; the diameter of the sac at this part being full one and three fourths inches.

It did not occur to me that a more particular description of the "small exploring trocar" used was called for. The instrument was "a long slender threadlike trocar (less than one sixteenth of an inch in diameter), with a wire stilet passing through it." Surely no one who has been accustomed to the use of this instrument, or has even read what Professor J. Y. Simpson (see Braithwaite, part 40, page 205) and other good authorities have said in reference to its use, would ever speak of the introducing of *such* an instrument into the "central" part of *such* a tumor as unwarrantably "plunging a trocar."

The occurrence of "constitutional" disturbance from so slow and gradual a discharge of matter from so deep an abscess and through so small an opening, was surely not to be expected.

I beg you will have the kindness to lay the above explanations and additional facts before your readers.

In conclusion, I would again ask—

1st. Have I probably seen the last of it?

2d. Did I reason and act wisely in opening it as early as I did, and in the *manner* I did? Yours, &c. S. T.

Andover, Sept. 22, 1862.

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, September 20th, 1862.

DEATHS.

	Males.	*Females*	*Total.*
Deaths during the week,	47	39	86
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	45.1	44 4	89.5
Average corrected to increased population,	..	..	99.88
Deaths of persons above 90,	..	0	0

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
12	13	2	1	0	1	4	2	0

Pamphlets Received.—Medical Communications with the Proceedings of the Seventieth Annual Convention of the Connecticut Medical Society, held at Bridgeport May 28th and 29th, 1862.

Deaths in Boston for the week ending Saturday noon, September 20th, 86. Males, 47—Females, 39. Accident, 2—apoplexy, 2—disease of the bowels, 1—inflammation of the bowels, 2—disease of the brain, 2—bronchitis, 1—cancer, 2—cholera infantum, 13—consumption, 12—convulsions, 4—croup, 2—diarrhœa, 3—dropsy, 1—dropsy of the brain, 2—dysentery, 4—scarlet fever, 1—typhoid fever, 2—hæmorrhage, 2—disease of the heart, 2—infantile disease, 6—intemperance, 3—disease of the liver, 1—marasmus, 4—old age, [illegible]—paralysis, 1—scalded, 1—smallpox, 1—teething, 2—unknown, 6.

Under 5 years of age, 45—between 5 and 20 years, 3—between 20 and 40 years, 17—between 40 and 60 years, 12—above 60 years, 8. Born in the United States, 60—Ireland, 21—other places, 5.

THE
BOSTON MEDICAL AND SURGICAL JOURNAL.

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TYPHUS AND TYPHOID FEVERS.

To the Editor of the Boston Medical and Surgical Journal.

MY DEAR SIR,—Agreeably to your request I send a communication on fever, which was made to the Massachusetts Medical Society at its last annual meeting. In the August number of the *Dublin Quarterly Journal of Medical Science*, there is an article on fever by Dr. H. Kennedy, in which the writer maintains that the theory of one poison, the effects of which differ with circumstances, is most consistent with facts hitherto observed, and he gives a series of cases to establish the position that typhoid and typhus fevers are not distinct diseases. This conclusion cannot be accepted as by any means demonstrated. We may believe that there are several poisons producing fevers, that these poisons are often associated, that persons exposed to them variously have symptoms sometimes produced by one or more of these poisons. It seems to me also that we ought to pursue our researches in that direction. Dr. Kennedy does not accept the opinion, that emanations from sewers constitute the typhoid fever poison. They are not as yet proved to be so, but are they not justly suspected of having something to do with the production of the disease? Emanations from the living body are believed to constitute the typhus fever poison, and though this opinion may be said to be well supported by a large number of histories well taken and recorded, still all must admit that we need more information before we can say decidedly what the typhus fever poison is.

As your Journal has a wide circulation, the publication of the accompanying communication may elicit matter from some of your correspondents, valuable to help in answering some of these questions on the etiology and symptomatology of fevers here propounded.

Very truly yours, GEO. C. SHATTUCK.

MR. PRESIDENT, AND GENTLEMEN OF THE MASSACHUSETTS MEDICAL SOCIETY,—The interesting reminiscences of typhoid fever communicated last year by Dr. Perkins, have suggested a recital of three cases under observation during the last winter, in each of which there were certain peculiarities which will serve as matter for queries and remarks.

The first patient was a woman, 25 years of age, a native of Germany, well developed, but for two years an invalid, leucorrhœa being the symptom most prominent in her own mind, who took to her bed on the last Tuesday in October, having given up work on the previous Saturday; and on Monday, November 4th, she came from Providence to Boston by railroad, and entered the hospital the same day. Headache, pain in back and limbs, weakness, and, later, cough, were symptoms during the first few days. On Tuesday, November 5, the skin was hot and dry, the pulse 100, regular, small, quick and hard; respiration difficult, 40. Serum and yellow mucus streaked with blood were found in the spit-cup; cough moderately frequent. Pulmonary resonance and vesicular respiration were found over both upper chests, but there was flatness in front from fourth left rib downwards, with a friction sound on inspiration and expiration. The skin was of a dusky hue, the tongue coated—thirst, inappetence. Rose spots, no tenderness in iliac fossa, tympanitis, four loose dejections. No headache; mind clear, but easily tired; slept well in night.

There can hardly be a doubt in any mind, that this patient had typhoid fever. Headache, weakness, a hot skin and quick pulse, diarrhœa, tympanitis, rose spots, are all characteristic symptoms. But there was also pleurisy and congestion of the left lung. She remained in the hospital until the 24th of December, and then, after an illness of eight weeks, she had only so far recovered, that it was deemed prudent to yield to her earnest request to be allowed to go home. Weakness, emaciation, were still prominent symptoms, as they had been. The fever lasted a week, to return for a day or two at a time twice, and in connection with an aggravation of the thoracic symptoms. These were the most persistent of any. The diarrhœa, tympanitis and rose spots disappeared; there was gurgling in the iliac fossa on one day only, but no tenderness. The friction sounds of the left lower chest continued for a few days only, but diminished resonance, feeble respiration, mucous and occasionally bloody expectoration, cough, frequent and embarrassed respiration, were the prominent symptoms. November 22d, subcrepitant rale was noticed over lower left front and back, the skin was hot and dry, the pulse 128, the respiration 40. Delirium, stupor, sleeplessness, were never noticed. November 27th, the thirty-first day of her illness, she took solid food for the first time, having had broths, gruel, wine and whey, and whiskey punch previously, as she relished them. Cough, scanty mucous expectoration, diminished resonance and feeble respiration over the left lower thorax, with a blowing inspiration and a slight dulness under the left clavicle, were the physical signs when she went home. She had several boils during the last two weeks of her being in the hospital. The treatment consisted in gentle laxatives and diaphoretics, with nourishment and stimulus, as she was able to take them.

Now typhoid fever has been called a dothin-enteritis. Peyer's patches were probably affected in this case, but the disease by no means consisted in that affection. During several weeks there were neither abdominal nor cerebral symptoms. Are abdominal and cerebral symptoms and lesions essential to typhoid fever? Is it right to call it an enteric, an abdominal, a nervous or a brain fever? When we call it a zymotic disease, when we speak of it as the effect of a poison, do we not tell much more about the disease?

There were twelve cases of typhoid fever under treatment during the four months of November, December, January and February, four of them fatal, a larger proportion of deaths in fever cases than are found at the hospital during other years. The abdominal symptoms and lesions characteristic of typhoid fever were generally found, but I will relate briefly two other cases, neither of them fatal, to which the terms abdominal or enteric would hardly apply.

Mary McDougal, 33 years of age, well developed, having generally had good health, came into the hospital on the 23d of November, not having been quite well for a week or ten days, but having been confined to her bed only three days. She rode to the hospital, but walked up stairs, and seemed quite tired after the exertion. Headache, pain in back and limbs, and weakness, were the symptoms; but on the 24th, there was no pain in head, back or limbs; she had slept pretty well, her skin was warm, her pulse at 84, respiration 30, easy. The resonance of the chest was normal, except for increased dulness in the cardiac region, the respiratory murmur vesicular, free from rale. Expectoration sero-mucous, inconsiderable. Occasional cough. A systolic murmur following the first sound, loudest at the junction of the 3d left cartilage to the sternum, not heard over the carotids nor in the left vertebral groove, indistinct at apex. Both sounds of heart heard in right 3d intercostal space and over mid-sternum. Thirst, anorexia, tongue nearly clean, abdomen moderately full, no rose spots, no tenderness in iliac fossa, constipation. She kept her bed, being too weak to sit up, but had no pain. Cough and expectoration, and occasional sibilant rale over both backs. She began to sit up at the end of the fourth week of her illness, and was discharged well on the fifth day of January, after a residence of six weeks in the hospital. There were no delirium, stupor, subsultus tendinum, abdominal pain or tenderness, gurgling in iliac fossa, diarrhoea. Shall we call it a case of typhoid fever? The symptoms were from the thoracic organs, but the weakness so as to necessitate a recumbent posture in bed, thirst, loss of appetite, frequent in typhoid fever, are not recognized as accompanying such an inconsiderable disturbance of the circulation and respiration. The bellows systolic murmur was attributed to an obstructive disease of the valves of the pulmonary artery, and this was accompanied by an embarrassed circulation in the lungs, by exudation of mucous serum, and once or twice of the coloring matter of the blood in the bronchial tubes. The murmur had disappeared when she left the hospital, the cough had ceased, the respiration and circulation seemed normal. The thorax was examined carefully and frequently. The abnormal sound was loudest at the spot which is said to correspond with the locality of the valves of the pulmonary artery. It was not heard over the carotids nor in the vertebral groove, so that we cannot connect it with obstructive disease of the valves of the aorta. It was indistinct at the apex of the heart, where it should have been loud were it attributable to an insufficiency of the auriculo-ventricular valve. I do not regard this diagnosis as demonstrated, it is probable. The murmur was examined nearly every day during four weeks or more. The patient had had no dyspnœa nor palpitation before being taken sick; 8 or 10 years ago she had acute rheumatism, from which she had perfectly recovered. But was this a case of typhoid fever? There were no symptoms of dothin-enteritis. There could hardly have been any ulceration of Peyer's patches. This is not essential to typhoid fever, but how often does the poison producing that disease, spend itself on other parts and organs, and spare entirely the glandular system and mucous membrane of the bowels? This is the question which I would ask of the Society, and I would cite one more case which was under observation at the same time.

A well developed English woman, 21 years of age, took to her bed the 28th day of October; headache, pain in back and limbs: and, not getting any better, she came to the hospital on the fourth day of November. She was weak, dizzy; dulness of countenance, answering clearly and distinctly, but is soon tired; organs of sense not affected. Skin hot, pulse 92, thirst, anorexia, tongue coated; abdomen full, resonant, not tender on pressure, no eruption, constipation. No cough, nothing remarkable on exploration of chest. She relished and felt the better for dry toast and mutton broth. She took but little solid food, but drank freely of beef tea and chicken broth; and on the 12th November, the 16th day of her disease, when there was no fever, she said she was tired of spoon victuals, and was allowed to chew mutton chop and eat a potato, which sat well and were easily digested. She sat up a little while and walked a few steps on the following day. She gained slowly in strength, and walked out of doors on the 23d day of her illness. Emaciation was marked in her case. She remained in the hospital during a period of 8 weeks. She missed one catamenial period, and at the second, six weeks after she was taken sick, there was a profuse discharge, with exquisite abdominal pain and tenderness, the legs much flexed on the abdomen, the pulse 120 and small, nausea and vomiting. These symptoms continued during thirty-six hours, and disappeared. Now can we say that this is not a case of typhoid fever? We have none of the peculiar abdominal symptoms of the disease. There were no thoracic symptoms in this case, and headache was the only cerebral symptom. The nutrition was much affected, the emaciation and the fever quite marked. We cannot say, to be sure, that there was no disease of Peyer's patches, but we have no evidence of their being affected. Though typhoid fever has been so carefully studied, though we have so many valuable treatises and monograms devoted to it, there is much to be learned about it, and much can be done to disseminate and establish correct views in regard to it. Of its etiology we have learned a good deal. Recent researches point to the secretion of the bowels, to sewage, as causes of the disease, and to drains and cess-pools as their seats. From hospital practice we cannot get the material for coming to definite conclusions on these points. All medical men should inquire closely in their private practice for evidence of the way the disease was contracted in every case, and we now seem to be put on the track of getting information, so much wanted on the source and nature of the poison which produces the fever. That the poison gets into the blood through the pulmonary and gastro-intestinal mucous membranes, that it acts upon that fluid, and upon the nervous system of organic as well as of animal life, we may regard as well settled. That it is more frequently determined to the glandular system of the intestines than to any other excretory organ, we may admit. The name broncho-typhus shows that we believe typhus poison to be determined to the lungs more decidedly and more frequently: though generally in typhoid fever, cough, expectoration, sibilant and sonorous rales, indicate that the bronchial mucous membrane has been affected by that poison. Information is wanted of the frequency with which this membrane is affected in different epidemics. Dr. La Roche has devoted a volume to the study of lung affections in malarious fevers. Are we right in inferring that pneumonia is more frequent as an epidemic peculiarity in periodical than continued fever?

This knowledge of local affections in fevers is necessary to perfect our classification. One difficulty here has been in names and distinctive marks being taken too much from symptoms or lesions. If we could get hold of the poison producing typhoid, of that producing typhus, of that producing relapsing fever, if we could study these, we should have a real basis for classification. And besides poisons of animal, vegetable, telluric and atmospheric origin, we have fever the effect of fatigue, of nervous exhaustion, of poisons generated in the economy. Now, carefully observed cases of continued fever, such as occur in private practice, are still wanted, as well as histories of epidemics. And these latter, prevailing in country towns or villages, if we could have detailed and accurate histories of them as occurring throughout New England for a succession of years, how much should we gain towards a satisfactory solution of the question, how many forms of continued fever there are, how they are related to each other, and how different poisons may be acting in one patient. Let us hope that this Society is doing its part towards getting the material for a medical history of our land, by encouraging its members in telling something of what they have seen or heard during the year at these their annual gatherings.

ON CATARACT.—No. IV.

[Concluded from page 157.]

As to the size, form and direction of the corneal section, and in general as to the whole process during and after the operation, there is little new to be said. Prof. Arlt has, in the main, retained the views expressed in his book published in 1853, Vol. II., pp. 293—326. The following, however, may be deserving of remark. At present he lets nearly all the patients lie in bed during the operation. They are thus more quiet, and do not keep the muscles (of the eye) in excessive tension. Probably it is in part owing to this circumstance that loss of the vitreous seldom occurs with us, and for the most part only in cases in which it had been expected beforehand (on account of capsular cataract or fluidity of the vitreous).

He himself does not hold the under lid, but the upper, by reaching down from the forehead with his thumb, and lets the assistant merely draw the under lid somewhat downwards. He no longer considers it necessary to finish the section in one movement (by merely pushing the knife forwards), but generally divides the last portion while drawing the knife backwards. He prefers knives after Beer's pattern, in which the base is to the length as two to seven, as these cut easier than knives that rise more rapidly from the point to the base. He avoids making the section near the sclerotic, not merely on account of the peeling off of the conjunctiva, but from having found that in such cases the periphery of the iris easily falls into the wound.

To open the capsule he generally makes use of the slightly curved, sickle-shaped needle of Rosas; in cases of anterior capsular cataract, an iris-hook and slender forceps (like the one for iridectomy) are kept ready at hand for extraction of the capsule. These instruments serve also to draw forward the pupillary edge of the iris when it appears necessary or advisable to remove a small part of it with the scissors.

In the third step of the operation he holds and directs the lids himself, pressing and stroking a little, now through the one, now through the other, as the momentary position and the delivery of the lens require. Larger remnants of the lens are brought out in the same manner, smaller ones with the curette.

For closing the eyes, strips of court-plaster are no longer used. They fret the skin, especially when the edges roll back, and occasion, in sensitive persons, winking, and even spasmodic closing of the lids, and the imprudent are likely in such cases even to lift their hands and take hold of the lids. The fossa between the bridge of the nose and the edge of the orbit is filled with a mass of loose lint, that of the other eye being filled before the operation. The lint is kept on by three strips of linen, each about an inch wide and from five to six inches long, and spread at each end with some diachylon plaster. One strip passes from the left frontal eminence obliquely down and outwards over the right cheek towards the parotid gland, the second likewise obliquely from the right frontal eminence to the left cheek, the third from one temple to the other over the eyes and nose. This bandage makes it easy for the patient to keep the eyes quietly closed without winking much, and protects them from dust, light, and changes of temperature. Under the bandage the secretion of the conjunctiva and meibomian glands does not dry up to hard crusts, and it is not necessary to wash the eyes for a long time before being able to examine them. If the lint is renewed every twelve or twenty-four hours, it does not adhere to the eyelashes, or at least can be easily loosened by dropping on a little tepid water. In this way one can very easily, and without danger, get a view of the eye, if desirable or necessary, and satisfy himself, when the patient complains of discomfort, whether there is anything going on wrong in the eye to cause it. The bandage is not left off till the sixth day, and cold dressings are substituted only when required by inflammatory attacks.

Uninterrupted rest in one position is less insisted on than formerly. Always on the second day towards evening, and often the first day, we let the patients sit up in bed for from ten to twenty minutes to rest themselves and so to lie more quietly afterwards. Only those movements are interdicted in which holding of the breath and venous congestion usually take place, since with these we have also to fear congestion of blood in the eye and increase of intraocular pressure. Included with the above, are violent coughing and laughing. With respect to keeping the patient in the supine position, we bear in mind the proverb, "*Allzuscharf macht schartig.*"

ON ARTERIAL MURMURS IN INCIPIENT PHTHISIS.

By W. S. Kirkes, M.D.,

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In the first of a series of Clinical Essays lately published, Dr. B. W. Richardson alludes to a former paper of mine on the subject of "Subclavian Murmur." This paper was read before a private Society for the Study of Chest Diseases, in April, 1858. Its publication was delayed in order to afford time for further observations, so that a more complete account of the subject might be given. Other occupations, however, having interfered with this intention, and Dr. Richardson's investigations having so successfully supplied much that was wanted in the clinical history of this peculiar physical sign. I am induced now simply to print the paper exactly as it was originally read, making only one additional remark; namely, that repeated subsequent observations have convinced me more and more of the value of this sign in many doubtful cases of incipient tubercular disease of the lungs.

The fact that a murmur, or *bruit*, coincident with the heart's systole, but independent of any cardiac disease, may, in many cases of incipient phthisis, be heard in one or other subclavian region, has long been known. Dr. Ogier Ward, I believe, was the first publicly to direct attention to this fact; at least, I have not met with any earlier allusion to it than that in a paper communicated by Dr. Ward to the *Medical Gazette* about twenty years ago. Therein he speaks of "a peculiar murmur heard in certain parts of the chest of persons presenting symptoms of phthisis," and he says "it occurs in such parts of the chest as percussion or auscultation would indicate as the seat of crude tubercles." Dr. Latham, however, was probably then, if not long before, familiar with the murmur in question, for in his Clinical Lectures on Diseases of the Heart, delivered many years ago at St. Bartholomew's Hospital, he speaks very strongly about it, though at the same time it must be observed that his remarks only apply to a murmur heard in the situation of the pulmonary artery, and not high up in the subclavian region. He says, "Fancy a line drawn from the left side of the sternum along the upper edge of the second costal cartilage, and continued an inch along the second rib; and another line drawn from the sternum along the lower edge of the third costal cartilage, and continued an inch along the third rib. Between these two lines a space is included, in the whole or in part of which a murmur is often audible coincident with the systole of the heart, when no such murmur can be perceived either in the præcordial region, or in the course of the aorta, or in the carotids, or in any part of the arterial system, but here, and here only. It is a gentle bellows-murmur, quite obvious to the ear, and unmistakeable in its character. Of such a murmur, often audible in this situation exclusively, I am certain as a matter of fact, and certain, too, of its very remarkable accompaniments. I have witnessed it in those who were undeniably consumptive, or in those who were too justly suspected of being so. I cannot say in what proportion of the phthisical it occurs; but I am continually meeting with it." It is clear, then, that Dr. Latham was quite familiar with these arterial murmurs, and that he attached some value to them as a diagnostic sign of phthisis. Since this account was published, however, very little has been written on the subject, casual allusion to it in various works on diseases of the chest being nearly all I have met with. I think, however, that the subject deserves further examination, especially since the murmur in question is frequently attendant upon incipient phthisis, and also since there is often so much obscurity in the other physical signs of early tubercular deposit in the lungs—a little feebleness or coarseness of the vesicular murmur, slightly prolonged expiration, and a somewhat diminished resonance on percussion being nearly the only manifestations of incipient phthisis; and even these are often of very doubtful nature, and rarely exist in a marked degree until a considerable amount of deposit has taken place. Any additional physical sign, therefore, by which the diagnosis of incipient phthisis may be facilitated, cannot fail to be of value, especially if it be one easy of detection, such as a well-marked arterial *bruit*.

It may be as well to mention some of the more striking peculiarities by which the murmur in question is distinguished from most other forms of murmur; several of these peculiarities are noted in the extract just given from Dr. Latham's work. Other additional points I have noticed myself.

1. First, it may be repeated that the murmur is independent of a murmur in the region of the heart; this is an important point, for if a cardiac murmur existed, its transmission might, of course, be supposed to explain the one heard in the subclavian region; but again and again I have found the heart's sounds quite healthy when the subclavian murmur was well marked. The conclusion arrived at, therefore, must be that the murmur has its origin at or about the part where it is heard, and not in the heart.

2. Next, as to the situation of the murmur. Dr. Latham speaks of it only as occurring in the neighborhood of the main trunk of the pulmonary artery, and therefore limited to the left side of the chest, and to that part of the left side where the pulmonary artery is situated, namely, the junction of the second and third costal cartilages and their intervening space to the sternum. But according to my own observation, it occurs, even more commonly, much higher than this situation, close under the clavicle, especially towards the humeral end of the bone; and, moreover, it occurs nearly, if not quite as frequently, on the right as on the left side of the chest; in fact, it occurs on that side and in that situation where we often have reason to suspect the existence of tubercular deposit.

3. Then there are certain peculiarities in the murmur itself. Its intensity varies greatly, ranging from the faintest whispering bellows-murmur to a loud harsh roaring sound. On one occasion, a man with symptoms of phthisis presented such a long and rasping murmur in one of the subclavian regions that I suspected he had an aneurism there; but on examining him again, a few days afterwards, the murmur had almost completely disappeared; and subsequent observation of the case proved that it was simply one of the class we are considering. This variableness in intensity of the murmur, even in the same patient, is another striking peculiarity which it often presents. Even while listening, a murmur which was harsh at first will often gradually become fainter, and may even completely disappear for a while. So fugacious, indeed, is the murmur sometimes, that I have frequently known it disappear and reappear seve-

ral times while a patient has been under examination. It may often be noticed, too, that the murmur is much influenced by the respiratory movements; its intensity being often greatest at the end of full inspiration, or just at the turn when expiration begins. Sometimes, indeed, the murmur is heard only at that time, disappearing completely during expiration, and only occurring again at the end of the next full inspiration. Its intensity is influenced, too, as is that of most other systolic murmurs, by the degree of vigor with which the heart is acting; being loudest when the heart is contracting vigorously, as when a patient first enters the room, or is somewhat excited, and becoming fainter as the temporary excitement subsides.

Such are some of the chief peculiarities of the murmur. Then comes the question, "To what cause is the murmur due?" This is the most important part of the inquiry: and I confess there is much difficulty about it; but the following remarks may probably help towards a satisfactory solution of the difficulty:—

1. Is the murmur simply anæmic? *i. e.*, brought about by an impoverished state of the blood, and a corresponding weak state of the vessels. I do not think it is; for if it were so it would most probably be heard at the base of the heart, and along the aorta, and in most of the main branches of the thoracic aorta; but, as observed, the subclavian murmur is usually independent of any cardiac or other murmur, and, moreover, it is commonly heard in one subclavian region and not in the other, a fact quite inconsistent with the supposition of an anæmic origin. Again, if it was purely anæmic it ought to be heard in all cases of anæmia; and it ought not to occur in cases which are not anæmic; but neither of these results is found to happen; for it is rare to meet with the murmur in anæmic cases independent of tubercular deposit, while it is frequently heard in suspected phthisical patients before any marked signs of anæmia are developed. Again, too, if it were anæmic it ought to be constant, or nearly so, like other arterial anæmic murmurs, whereas it is, as I have said, often most fugacious—fading, disappearing, and reappearing again and again even during the same examination.

2. This variableness in its intensity, and even in its existence, naturally suggests that the murmur is due to some cause which is not always in operation, but only exercises a temporary influence. Now, nothing is so likely to be of this nature as pressure; for we can readily understand that with the continual changes taking place in the respiratory and circulatory movements within the chest, arterial and other canals, with their contents, will be continually exposed to varying degrees of pressure. Some examination of this as the probable cause of the murmur is necessary.

It is, perhaps, scarcely requisite to call to mind that simple pressure on a given part of an artery is sufficient to cause a murmur, by accelerating the current at the part compressed, and thus increasing the force with which the particles of blood come into collision with those in the succeeding wide part of the canal. Dr. Lathan pointed out this fact very clearly, showing that in children with yielding thoracic parietes it is easy to produce a murmur in the pulmonary artery by exercising a little extra pressure with the stethoscope at or about the second left intercostal space near the sternum; and Dr. Jenner has since confirmed this observation by several additional examples. It being well determined, then, that artificial pressure on an artery, by narrowing its calibre at a given part, may give rise to a murmur, we can readily understand that a like result—namely, an arterial murmur—may ensue when a large arterial trunk is compressed by any solid material such as cancerous or tubercular matter deposited in parts contiguous to it. In order to the production of such a murmur, it is not perhaps enough that the parts surrounding the artery, say the tissue of the lung, should be simply consolidated, but probably they must be so affected as actually to press upon and narrow the artery at some point; as, for example, when a deposit ensues in such a situation as to project above the general level, and this in the immediate proximity of an arterial trunk.

That arterial murmurs in different parts of the thorax may thus be the result of pressure exercised by a terbercular lung, is demonstrated by an example mentioned in Dr. Hope's great work "On Diseases of the Heart." "I had a patient," Dr. Hope says, "in the St. Marylebone Infirmary, in whom I, as well as the Apothecary, Mr. Hutchinson, noticed a distinct murmur along the ascending aorta on some occasions, and not the slightest in others. I was much perplexed, and could not make up my mind as to the existence of valvular or aortic disease. The patient died of phthisis; and on post-mortem examination it was found that the anterior edge of the left lung, completely indurated by tubercular deposition, pressed so exactly on the ascending aorta as actually to have taken its mould, though without adhering. It was now recollected that the murmur had always been heard when she lay on her back or inclined to the right side, but not when inclined to the left; hence we ascribed it to pressure of the lung on the aorta when the position of the body caused it to gravitate towards the right side." (Third edition, p. 391.) There can be little doubt that Dr. Hope's interpretation was correct; and it clearly suggests to us that tubercular and such-like deposits in other parts may, when in close proximity to a larger artery, compress it and so give rise to a murmur.

I incline, then, to believe that in the majority of cases in which this subclavian murmur occurs in incipient phthisis, it is due to unwonted pressure exerted on some large arterial trunk, diminishing its calibre at the compressed part. The cause of pressure is, no doubt, the tubercular matter deposited in the pulmonary tissue. But then the inquiry occurs, What artery is compressed? This, no doubt, will vary according to the seat of the tubercular deposit. If it occurs below the apex of the lung or near the situation of the pulmonary artery, this vessel may be the one compressed and the one which gives rise to the murmur, as so often noticed by Dr. Latham.

The same artery, too, may be compressed and probably generate a murmur in cases where neighboring bronchial glands are enlarged and filled with tubercular matter. But when the deposit occurs, as it usually does, in or closely adjacent to the very apex of the lung, the arterial trunk most likely to be compressed is the subclavian. This artery lies upon, and actually indents the apex of the lung for a distance of an inch and a half or two inches on the left side, rather less on the right. Now, when the apex of the lung is consolidated by tubercular deposit, we can readily understand that it will tend to exercise a greater degree of pressure on the subjacent artery than would healthy vesicular structure, and would therefore be likely to diminish the calibre of the vessel at that part, and thus give origin to a murmur. This supposition is strongly confirmed by the fact that the murmur is usually loudest at the end of full inspiration; for it is intelligible that when the vesicular structure of the neighboring portion of lung is fully distended with air, the consolidated portion will exercise a greater amount of pressure on the adjacent parts than when the vesicular structure is comparatively empty. The subclavian artery, then, I would suggest, is probably the usual source of the murmur so frequently heard when there is reason to suspect terbercular deposit in or about the apex of the lung; and when heard it may generally be held to indicate that the tubercular deposit is exercising pressure on the vessel. But although the subclavian artery is probably the most common seat of the murmur, yet the aorta, the innominate, and the carotids, are all in immediate proximity to the portions of lung most usually the seat of tubercular deposit, and may therefore be compressed by it, and give rise to a murmur. There is, of course, another view which may be taken as to the cause of the murmur; viz., that it may be the result not of pressure on a main artery, but simply of impediment to the transit of blood through the consolidated pulmonary tissue, whereby the pulmonary artery and its main branches become obstructed. But I cannot clearly understand in what way such impediment can give rise to a murmur presenting the characters already mentioned, and I am therefore inclined to ascribe very little influence to this condition.

With regard to the diagnostic value of the murmur, I may add that although its existence may be regarded as a strong additional sign of terbercular deposit, yet its absence must by no means be held as negativing the existence of such disease, for it is quite intelligible that even a considerable amount of deposit may exist without being so situated as to exercise sufficient pressure on any large artery to produce a murmur. Then, again, I would repeat that, so far as I have been able to determine, the murmur is an attendant on the *earliest* stage of phthisis, that namely of tubercular deposition; and on this fact its chief diagnostic value depends, for in the stage of softening the physical signs of the disease are too obvious to need any additional confirmation. The presence of the murmur in the earliest stage, and its absence in the stage of softening, are quite intelligible on the view that pressure by a consolidated lung is the cause of the sound, for it is in the first stage *especially* that this condition is likely to exist, the lung in the later stages being more or less softened, broken down, and hollowed into vomicæ. Moreover, in the later stages the total amount of blood is diminished from deficient nutrition, and the muscular power of the heart is also lessened, so that the blood is propelled with less force.

There is just one other point which I may mention; care should be taken, when listening towards the humeral end of the clavicle, not to press too hard on the subclavian artery in its course outside the chest, for in some cases I believe I have by such pressure induced a murmur which did not previously exist; and this is a caution which should be especially observed in thin and anæmic subjects.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

Aug. 11th.—*Muscular Debility, cured by Mechanical Support and systematic Exercise.*—Dr. Shattuck reported the following case:—E. W., aged 16, was born in Hamburg, but came to this country when a child, and has not been exposed to hardships or privations. She had good health till the age of 13, when she gradually lost strength, her appetite diminished, the digestion became difficult, and the bowels at times constipated. Her catamenia appeared at the age of 11½, and were regular, with intervals of three weeks, except at one time, when they did not appear for six months. In October, 1860, she entered the Female Medical College Hospital, where she staid till the following June, mostly confined to her bed, with pain in the back, irregular, capricious appetite, constipation and more or less difficulty of digestion. She took various preparations of iron and bark, and received other treatment, but did not improve. She entered the Samaritan Hospital on the 10th of August, 1861. At that time she was mostly confined to the bed, could not hold herself up, and when she attempted to walk, was bent nearly double.

Dr. Buckminster Brown took the charge of her case in the month of October, and in the course of the next three months she had improved so much as to be able to walk about perfectly erect, and to do the work of the ward, sweeping, dusting and making beds. She took various preparations of bark and iron, and some laxative medicine. An iron support was worn a great part of the day, which was so adapted as to interfere but little with the motions of the chest and abdomen. Various gymnastic exercises were contrived, so as to exercise the muscles of the back. She persevered in the regular use of these, having a strong wish to get well. A liberal supply of pure air, of wholesome food at proper intervals, and bathing and friction of the skin, were also employed, and contributed to the favorable result. The support was worn for three months, and its use was given up gradually. She left the hospital in the month of June, and took a place as domestic in a family. She is now perfectly well, and stronger than the average of girls of her age: her appearance is that of health and vigor, her spine having only the normal curves.

Mechanical supports and gymnastic exercises are often abused, and therefore are somewhat suspected, but we have here an instance where their skilful application has been the means of restoring a helpless and suffering invalid to health and usefulness. This is one of those cases where the personal qualities of the medical and other attendants, where mechanical ingenuity, kindness of nature, patience and perseverance, were most important elements of success. Cases like this are not unfrequent, of young women, bed-ridden and helpless, who can be restored to usefulness by proper treatment, which, however, is not easily applied, and where the trust and docility of the patient is as essential to success as the skill and perseverance of the physician.

SEPT. 8th.—*Empyema with very slight general Symptoms; Thoracentesis.*—Dr. FIFIELD said he was applied to, a month ago, by a man who drove an express wagon, to be examined as to his soundness of health. The patient said that he had an attack of pleurisy in May, 1861, from which he did not recover till the following February. On examining his chest, Dr. F. found flatness of percussion-sound and absence of respiration throughout the whole of the left chest, and presuming that it was full of water or pus, advised puncture, which was refused. Three or four days ago the man came again, and Dr. F. found the heart displaced towards the right for a distance of seven inches. The pulse was 100, feeble and irregular. The patient was still pursuing his calling, but complained of shortness of breath. Yesterday, Dr. F. punctured the chest between the eighth and ninth ribs, and drew off sixty-six ounces of pus. Towards the close of the operation there was some cough, which ceased on removing the trocar. To-day, Dr. F. found, to his surprise, that the patient had mounted his wagon, and driven to town as usual.

Dr. Fifield used the syringe on this occasion. He thought it an awkward instrument, and doubted if it were really of much service. The want of a stop-cock to the canula is a great inconvenience, as air must enter to some extent without it, as actually occurred in the present case, after unscrewing the tube. The position of the patient is often uncomfortable when the syringe is used, whereas if a simple trocar and canula be employed the patient can lie down while the fluid is running out. He noticed that the "drainage tube," an elastic tube pierced with holes and passed through an upper and lower opening, was much used in England, but he had had no experience with it.—(Vide *Med. Chir. Trans.*, Vol. XLII.; also *Lancet*, Vol. II., 1859, p. 11.)

Dr. WARREN said that he had for the most part used Guérin's syringe, which is provided with a stop-cock. The elastic tube is frequently troublesome, and collapses when the fluid is thick and the suction strong. It is then necessary to screw the syringe directly on to the canula. When the canula used is small, in order to make the connection between it and the elastic tube air-tight, a bit of bladder or intestine can be used. This is to be cut to the size of a dollar, the trocar thrust through its middle, and by wetting it, and drawing it back over the joint, no air can penetrate. Most cases of empyema, however, come at last to a fistulous opening, which ought always to be large. If small, the free exit of the pus is hindered, and inflammation of the sides of the abscess, and sometimes necrosis of the rib, are apt to follow, with hæmorrhage. In one of his cases, which happened ten years ago, the opening, made a year before, was fistulous and quite small. Profuse bleeding took place, and the patient nearly died. As the bleeding was usually very sudden and violent, as if from a large vessel, it was at first supposed that the intercostal artery had been eroded, especially as the rib was carious. An operation was done, the rib was exposed, and one or two inches removed, so that the finger could pass freely into the cavity of the chest. Several quarts of pus and blood were evacuated. The patient was a large man, with a very expansive chest. No artery was discovered, but the bleeding seemed to come from the irritated vessels in the neighborhood of the aperture. The patient recovered, and is now well.

Dr. Minot said that a patient upon whom he had performed this operation in the Hospital a year ago, bled to death twenty-six days afterwards. The bleeding apparently did not come from the puncture, as it was mostly internal. The discharge of pus had been quite free, and gave great relief to the patient. At the autopsy there was found caries of several of the ribs, but the source of the hæmorrhage could not be ascertained.

Dr. Bethune thought that the necrosis might possibly be the cause, and not the consequence of the empyema, in some cases.

Dr. Jackson remarked that he had never met with necrosis in these cases, and thought that, when it occurred, it must generally be secondary. As to the entrance of air into the chest, he thought its importance had been exaggerated. Its presence in the healthy chest seems to do little harm. In the operation of removing the breast, the pleura is now and then punctured; air enters, and the lung collapses, but the air is soon absorbed. When the pleura is inflamed, the effect might be more unfavorable. With regard to the operation, he thought that a free incision might sometimes be made in chronic cases, instead of a small puncture. In a case that he saw, of the late Dr. Fisher's, a spontaneous opening was anticipated by making a free incision; an enormous discharge of pus followed, and continued for some time, and the patient recovered perfectly.

Dr. Warren said he visited, with Dr. Bowditch, some years ago, a boy with empyema, in whom there were two or three fistulous openings which had formed spontaneously. The patient had symptoms resembling phthisis, and his condition was very unpromising. Dr. B. and himself agreed on a free incision, which was prevented from closing by means of a tent. The discharge became free, and the boy immediately improved, and recovered perfectly. In this case no disease of the rib was discovered.

Dr. J. P. Reynolds asked whether much treatment were really demanded in cases of simple pleurisy. He was not in the habit of treating the disease actively, and in the case of a delicate person who came under his care the result was very satisfactory.

Dr. Fifield remarked that immense quantities of fluid, in cases of recent effusion, were sometimes absorbed in an astonishing manner, an example of which he had reported to the Society a year ago.—(See this Journal, Vol. LXIII., p. 40.)

Dr. Minot thought that patients sometimes first apply for advice after the fluid is really absorbed: the false-membranes remaining may be sufficient to cause dulness on percussion and obscure respiratory murmur. In such cases we may fancy we cure our patients, when they were in reality already cured.

Dr. Reynolds said he alluded to cases in which there were unmistakable signs of effusion, such as a change in the locality of the physical signs corresponding to a change of posture of the patient.

Dr. Minot said he was surprised to find how few cases occurred in which this test of the presence of fluid in the chest could be made available; probably owing to the effusion being usually confined by adhesions.

Dr. Fifield had observed the same thing.

Dr. Jackson thought that the change in the situation of the physical signs produced by change in the patient's position is often very remarkable, and such a case is now under his care in the Hospital. While lying down, the percussion in this patient is resonant and the respiration natural over the right front; with perfect flatness and bronchial respiration when he is upright. In this case there is an entire absence of pain in the chest, but dyspnœa is an urgent symptom. In respect to treatment, Dr. J. observed that the external application of tincture of iodine was much used here, and in a recent Hospital case he thought that more improvement was obtained by this remedy than by any other, before the chest was punctured. He had heard it said, however, that Skoda, of Vienna, considered it of no use whatever; and that he will sometimes paint the chest over with the tincture to prove his point. Dr. J. remarked that the physical signs often remain, to some extent, long after the patient is well; and we may sometimes be deceived into keeping him under treatment too long.

Dr. Bowditch said he had used Dr. Wyman's instrument too often to give it up for slight reasons. If properly used it is impossible for air to enter the chest. The tube should not be unscrewed from the canula until the latter is removed from the chest. Nor had he ever had the tube collapse in the slightest degree. He was aware that the instrument was imperfect, for it could not pretend to cure every case, but it was exceedingly useful in many cases in which it was impossible or improper to use Trousseau's or Guérin's trocars, which were altogether too large, and in which the patient would die without an operation. The exploring trocar reaches many cases which other instruments are incapable of reaching. He was satisfied that strong suction was often beneficial by forcing the lung to expand. He always stopped when the patient experienced any painful or disagreeable sensation, except cough, which he thought was a good sign, indicating that the lung was expanding. When there was no cough, he thought the case unfavorable, as showing that the lung was bound down by strong adhesions and could not expand. As a rule he punctured an inch or two above the level of the lowest point at which the respiratory murmur could be heard on the sound side—generally between the 9th and 10th ribs, and in a line let fall from the angle of the scapula. In cases in which it is expedient to leave a canula in the chest, he had found that an elastic tube was far more comfortable to the patient than a silver one, which prevented him from lying except in certain positions.

With regard to the external application of iodine, Dr. Bowditch was satisfied that rapid absorption sometimes takes place under it, when it causes severe pain. It must not be employed in a namby-pamby manner, but must be used with effect. The ethereal tincture, of the strength of half a drachm to the ounce, was the best and most effectual preparation.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, OCTOBER 2, 1862.

ARE MEMBERS OF THE MASSACHUSETTS MEDICAL SOCIETY EXEMPT FROM DRAFT?—We have received the following communications touching this most important question:—

"*Waltham, Sept.* 25, 1862.

"MR. EDITOR,—It appears that members of the Massachusetts Medical Society are not exempt from draft. This is not as it should be. In times like these, when medical men are in great demand, both for service in the field and in Hospitals, they ought not to be liable to be drafted and placed in the ranks. Professors in Medical Colleges, and advanced Medical Students (as the latter have done, and are still doing valuable service for the wounded in this war), should be exempt from draft. Enough will always be ready to volunteer their services when required; and we are confident that they can render more valuable service as *healers* than *slayers*. Medical men are quite as useful as any other class of citizens, and if any are to be exempt, we think they should be; and we hope an effort will be made to have their claims recognized by both State and National Governments.

J. L. D."

"MR. EDITOR,—It has been said, that members of the Massachusetts Medical Society are *not* by law exempted, as such, from enrolment and draft, and that members of the Massachusetts Homœopathic Medical Society *are* exempt from the same. As the question is one which, so far as the former are concerned, may be yet decided under a writ of *habeas corpus*, would it not be well for the JOURNAL to publish the Charters of the two Societies, with the amendments and additions made to the Charter of the former, touching this point, as well as the general law under which Judge Russell has decided that the vested rights of the former have been taken away? * * *"

In reply to the request of the last of these communications we reprint the clause of the Charter of the Massachusetts Medical Society, exempting its Fellows from enrolment, which concisely says:—

"SECTION 7. *And be it further enacted*, That the fellows of the said corporation shall not be liable to be enrolled or mustered in the militia of this commonwealth."

The Militia Law of the Commonwealth, as printed in the General Statutes, reads as follows:—

"SECTION 1. Every able-bodied white male citizen, resident within this state, of the age of eighteen years, and under the age of forty-five years, excepting persons enlisted into volunteer companies, persons exempted by the following sections, idiots, lunatics, common drunkards, vagabonds, paupers, and persons convicted of any infamous crime, shall be enrolled in the militia."

Persons exempted from enrolment are specified as follows:—

"SECT. 9. In addition to the following persons absolutely exempted from enrolment in the militia by the laws of the United States, viz.:—

"The vice-president of the United States;

"The officers, judicial and executive, of the government of the United States;

"The members of both houses of congress and their respective officers; custom house officers and their clerks; inspectors of exports; pilots, and mariners employed in the sea-service of a citizen or merchant within the United States;

"Postmasters, assistant-postmasters, and their clerks, post officers, post riders, and stage drivers, in the care and conveyance of the mail of the United States; ferrymen employed at any ferry on the post road; the artificers and workmen in the United States armory at Springfield and the arsenal at Watertown;

"The persons hereinafter mentioned, shall also be absolutely exempted from enrolment, viz.:—

"Justices of courts of record; judges and registers of probate and insolvency; registers of deeds and sheriffs;

"Officers who have held or may hold, for a period of five years, commissions in the army or navy of the United States;

"Officers who have held, for a period of five years, commissions in the militia of this or any other state of the United States; or who have been superseded and discharged; or who held commissions in any corps at the time of its disbandment;

"Staff officers heretofore exempted, and whose offices shall become vacant by the provisions of section fifty-nine;

"Ministers of the gospel;

"The superintendents, officers, and assistants, employed in or about either of the state hospitals, state almshouses, state prison, jails, or houses of correction; keepers of light-houses, and conductors and engine drivers of railroad trains;

"SECT. 10. Every person of either of the religious denominations of quakers or shakers, who, on or before the first Tuesday in May annually," &c.

"SECT. 11. Enginemen, or members of the fire department in a city or town, shall be exempted from military duty by forthwith filing with the assessors," &c.

Section 12 relates to exemption on acconnt of bodily infirmity.

With regard to the Massachusetts Medical Society, we would remark, that the clause we have published was not in the original Act of Incorporation, which bears date November 1st, 1781, but is one of a series of amendments enacted March 8th, 1803. We have not found evidence anywhere of the repeal of this act. We are not informed on what grounds the Commissioner of Enrolment for Suffolk, who is also one of the Associate Justices of the Superior Court, has decided that its provisions have become invalid by subsequent legislation. As no special reference is made to the Society in the extracts from the General Statutes printed above, it seems to us highly probable that the existence of such an act of exemption was unknown to the framers of the act. We should certainly suppose that a clause would have been inserted in the Statute repealing the act in question, had its existence been known. The only ground, then, for the Judge's opinion, that occurs to us is, that the Massachusetts Medical Society is not mentioned in the exemption clause of the Statutes which we have quoted. Whether this is legal ground for depriving the Society of their chartered privilege is a question for lawyers to decide; and we are decidedly of opinion that it will become a subject for legal discussion should the course of events threaten such a thing. Clearly it is a case about which there may be two opinions. We believe it has been distinctly decided that a charter cannot be repealed without the consent of the parties interested, or violation of its provisions on their part.

With regard to the Homœopathic Medical Society, we are quite in the dark, as we have not a copy of its charter within reach, nor have we ever seen it. It is very evident, however, that if any clause of exemption in the charter of that organization has any weight, *a fortiori* the exemption clause in the Act of Incorporation of our time-honored State Society must still hold good.

A Move in the Right Direction.—"On motion, a preamble and resolutions were brought forward, and discussed, relative to an individual, now a member, in Boston, who has prostituted the certificate of the Association and the names of its officers, to further the sale of his quack preparations, in violation of his written signature of agreement to uphold the objects of the Association, in article 1st, section 5th of the Constitution.

"After considerable discussion of the merits of the case, a vote on the resolution was directed to be taken by ballot.

"The chair announced, on the ballot being rendered by the tellers, that it proved unanimous in favor of the resolutions, and the Secretary was directed to notify him of the action of the Association."

Mr. Editor.—The above is copied from the proceedings of the Tenth Annual Meeting of the American Pharmaceutical Association, as published in the last number of the Journal of Pharmacy. It would not be difficult to guess the name of the offender, but why was the Secretary so careful to suppress it? If the act were intended as a punishment, the name should be known. How are the public to know, whether Tolu Anodyne or any other is the preparation spoken of? C. E. B.

We are glad to print the following order reinstating Dr. Edward B. Dalton in his post as Surgeon to the 36th New York Volunteers, from which he had been unjustly removed through the misunderstanding of a careless official. No one who knows Dr. Dalton believed for a moment that he could have been guilty of neglect of duty.

War Department, Adjutant General's Office,
Washington, September 20, 1862.

General Orders, No. 143.—So much of "General Orders," No. 125, as dismisses Surgeon Edward B. Dalton, 36th New York Volunteers, is, by direction of the President, revoked.

By order of the Secretary of War,
(Signed), L. Thomas, *Adjutant General.*
(Official.) E. D. Townsend, *Assistant Adjutant General.*

The Committee of the Suffolk District Medical Society on the subject of the Ambulance system of the United States Army, have prepared the following memorial, which will be circulated for the signatures of the profession.

"The undersigned Physicians of Massachusetts, satisfied that the present system of Ambulance arrangements is extremely defective and a cause of great suffering to our wounded soldiers, respectfully petition the Honorable Secretary of War to place the control of it in the hands of the Medical Department of the U. S. Army, with authority to organize a distinct Ambulance Corps."

Lint.—At a special meeting of the Providence Medical Association, held at the office of Dr. C. W. Parsons on the 18th of September, 1862, the subject of Lint and its uses was discussed. It was voted, after general consultation, that Drs. Mauran and C. Parsons be a committee to express to the public the views of the Association on the subject. In accordance with this vote, the committee would state, that they fully endorse the very sensible views of their medical brethren of Boston, published in the Boston Medical and Surgical Journal of September 11, a summary of which was re-published on the 13th instant in the *Providence Journal;* that the use of scraped or drawn lint, as recently prepared by our patriotic ladies, is rarely deemed necessary in modern surgery, and that its use in *hospital* practice has indeed been injurious rather than beneficial to the patient, especially as an application to suppurating wounds. On the field of battle, however, its use is common; and for that purpose they would now present an admirable substitute, abundant, cheap, and of easy manufacture, viz., the recently invented steam-rotted and bleached *flax-cotton*. Information in regard to this article may be obtained by addressing the Secretary of the R. I. Society for the Encouragement of Domestic Industry.

JOSEPH MAURAN,
USHER PARSONS.

Providence, September 19, 1862.

SURGEONS AND ASSISTANT-SURGEONS FOR THE OHIO REGIMENTS.—At the last examination held in Columbus, August 5th and 6th, and 12th and 13th, a very large number of candidates presented themselves, from which a list of forty were recommended to the Governor for appointment as Surgeons, and one hundred and sixty-three as Assistant-Surgeons, in the Ohio regiments.

An appointment of twenty-five Surgeons and fifty-one Assistant-Surgeons, has also recently been made to the different regiments of the State.

Dr. J. E. Sanborn, of Epworth, Iowa, formerly a fellow of the Massachusetts Medical Society, has been appointed Surgeon to the 27th Iowa Regiment.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, SEPTEMBER 27th, 1862.

DEATHS.

	Males.	*Females*	*Total.*
Deaths during the week, ...	34	42	76
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	48.3	43.5	91.8
Average corrected to increased population, ...	..	..	102.44
Deaths of persons above 90, ...	..	0	0

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
12	13	2	1	1	0	2	2	0

TO CORRESPONDENTS.—Dr. Sawyer's Communication on the Nitrate of Potassa as a Remedy for Intermittent Fever; Dr. Mussey's on the Contagicusness of Typhoid Fever; and Dr. Ruschenberger's on the use of Oakum as a substitute for Lint, are on file for publication.

PAMPHLETS RECEIVED.—A Valedictory Address, delivered at the Public Commencement of the University of the Pacific, March 15, 1862, by Henry Gibbons, M.D., Professor of Materia Medica.

The article in this number of the JOURNAL on "Arterial Murmurs," &c., was taken from the London "Medical Times and Gazette." Credit in the proper place was accidentally omitted.

DIED,—At Monson, Dr. H. Cady.—In Dayton, Ohio, on the 17th of July, Dr. Job Haines, in the 69th year of his age, one of the early settlers of south-western Ohio, and one of the oldest and most venerable physicians of the State.—Killed, at the battle of Antietam, Sept. 17th, Albert A. Kendall, Assistant Surgeon of the 12th Regiment Mass. Volunteers, aged 34 years.

DEATHS IN BOSTON for the week ending Saturday noon, September 27th, 76. Males, 34—Females, 42. Accident, 4—disease of the bowels, 1—bronchitis, 1—cholera infantum, 13—cholera morbus, 2—consumption, 12—convulsions, 1—croup, 2—cyanosis, 1—debility, 1—diarrhœa, 2—dropsy, 3—dropsy of the brain, 3—dysentery, 2—scarlet fever, 1—typhoid fever, 2—gangrene (of the lungs), 1—disease of the heart, 3—infantile disease, 3—intemperance, 1—inflammation of the lungs, 1—marasmus, 4—measles, 1—old age, 3—paralysis, 1—puerperal disease, 1—unknown, 5—uterine hæmorrhage, 1.

Under 5 years of age, 37—between 5 and 20 years, 6—between 20 and 40 years, 13—between 40 and 60 years, 12—above 60 years, 8. Born in the United States, 56—Ireland, 16—other places, 4.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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TYPHOID FEVER SOMETIMES CONTAGIOUS.

[Communicated for the Boston Medical and Surgical Journal.]

Early in September, 1805, I took lodgings in the south parish of Ipswich, then called Chebacco, now the township of Essex, in Essex County, Mass., with a view to commence the practice of Medicine. At that time there was not, I believe, in the whole parish a single case of serious disease; nothing but some few chronic ailments with old people. One old lady, I recollect, who kept her head covered with, I think, six coverings of substantial cloth to keep the cold out; with whom advice from the doctor, with a pinch of chamomile flowers and another of valerian root, was always very welcome. One of the first professional applications I had, was for a plaster for a sore leg, and I well recollect the solicitude expressed by a gentleman of the place, a good friend of mine, who was present at the time and saw me apply the plaster *secundum artem*. After the patient was gone, he suggested, in the kindest manner, his serious apprehension that I should never be able to establish myself in that parish if I commenced with so high charges. I had charged and received *twenty cents*.

In December, I think it was, of the same year, a young married woman, whose husband was at sea, was brought sick to Chebacco, from a parish in Gloucester five or six miles distant, to be taken care of by her mother, who was very poor and had no female to help her. I was called and left some alterative medicine, to be followed by small doses of calomel at such intervals as the bowels would retain. It was an object with me to get the gums sore, having been taught in medical lectures that if a mercurial tenderness of the gums could be effected the patient would recover; and as the nursing was very imperfect, and the patient getting worse, I went early one day and remained four or five hours, chiefly to see that the medicine should not be neglected. I had no dinner that day, and as I stood by the bed-side, an intensely nauseating and oppressive smell made an impression at the pit of my stomach, which lasted about two hours, and which it seems to me I can never forget.

The day but one following, I had a chill, and at evening my pulse was 120. I took an aloetic cathartic, with five or six grains of calomel. From its operation I felt so much relief, that the day following I mounted my horse and rode to visit my patient, two miles distant. But I had to encounter on my return a storm of sleet driven by an ocean wind, which seemed to blow through me as through a basket. I went to my lodgings, took my bed, and did not leave my chamber for six weeks. My fever lasted twenty days, at which time there was an abatement. I had delirium, but in a less degree than my patient. For many days I was so deaf as to be scarcely able to hear the church bell, although it was very near. During several days, I had distorted vision. The wall of the chamber on my left, as I lay upon my back, seemed to lean over the bed at an angle of 12 or 15 degrees. My recollection of this is still vivid. It was not one of the creations of delirium; I regarded it then, as I do now, as the result of a morbid impression on the brain or nerves from the fever.

My friend, Dr. G. Osgood, was my physician. He came as an adventurer into the township of Hamilton, four miles distant, about the time that I entered the parish of Chebacco. He was very attentive and kind, visiting me daily, and twice passed the night in my chamber, sleeping at intervals on a couch upon the floor between my bed and the fire.

About the time that I became convalescent, my physician, Dr. O., was taken with fever, which lasted two weeks. During his convalescence, his nurse, Mrs. Roberts, had an attack of fever, which continued about ten days. Two children of the family in which I was sick, one of 7 or 8, the other of 9 or 10 years, for whom I had a strong partiality, came into my chamber almost every morning to ask how I did, and each of them had a mild fever of nine or ten days continuance. These were all the cases that occurred at Chebacco and Hamilton, where there had not been a case of fever for a long time. My own case was the worst after that of my patient.

Whether a mercurial tenderness of the mouth took place in either instance, I am unable to affirm, but I am inclined to the opinion that it did not. My patient died in about two weeks after she was brought sick into our parish; and as I left, as soon as I was able, for a lengthened absence in the country, I never learned many reliable particulars of her case which occurred after my last visit. Within three years after I commenced practice, I learned from observation that a mercurial tenderness of the gums is no sure presage of recovery from typhoid fever. I lost a patient of this description in a neighboring township.

From Dr. Amos Twitchell, one of the most talented physicians ever reared in New Hampshire, I received, substantially, the following statement. Deacon Hilliard, a resident of Cambridge, Mass., on his way home from Montreal, where typhoid fever at that time prevailed, was much indisposed on his arrival at Keene, where Dr. T. resided, put up at the principal hotel, and sent for the Doctor. He found Mr. H. laboring under typhoid symptoms. He was very sick for many days (how many I do not remember), was well cared for, and ultimately recovered. There was not a case of fever in Keene when Deacon H. came to the hotel. Eight cases followed, all of them among those who had given attention to the sick man in way of nursing or night watching. Some of those who attended upon the sick had the fever. Dr. T. assured me that he had satisfactory information of about sixty cases in all, which might be traced, either immediately or remotely, to Deacon Hilliard's chamber.

Continued fever, either in summer or autumn, was not a very uncommon occurrence in the village at Hanover, N. H., during my residence there of twenty-four years, from October, 1814. Dr. Nathan Smith, the founder of the Medical School at Dartmouth College, called the cases *typhus fever*, the distinctive marks of *typhus* and *typhoid* not having been well made out till after his time. Effluvia arising from the decomposition of vegetable matter seem to have originated typhoid fever in that region. In a small village on the Vermont side of Connecticut River, eight or ten miles from Hanover, a fever occurred with several individuals of a family. Dr. Smith was consulted, and on making investigation for a local origin, found in the cellar a large quantity of rotten cabbage. He had it all removed immediately, and the sickness ere long subsided—it did not spread among the neighbors.

I remember to have been called to a family two or three miles from the Connecticut River, on the Vermont side, where I think were three persons in one house sick with fever—all of whom were taken about the same time. It was spring; a potato hole had been recently opened, which contained a large mass of that vegetable in a rotten state. On the day it was opened a south wind blew strongly over it directly upon the house, not above twenty-five or thirty yards distant. The potatoes were removed, the fever subsided, and there were no additional cases.

A striking instance of fever originated in the village near the college. It began the latter part of August, 1831. Mr. W., a mechanic, had hired a house and rented some rooms to students whom he took as boarders; and had, in addition, a number who took their meals at his table but roomed elsewhere. Mr. W. himself was the first taken with fever, and in a few days his recovery appeared quite doubtful. I visited him from the 25th of August until the 6th of October, 1831. Two of the roomers were soon down, and ere long another, while several of those who roomed out were drooping, and being too sick to pursue their studies, left for their homes in the surrounding country. There were *thirteen* cases of fever in all from among those who ate at Mr. W.'s table, and one death of a student who went home with the fever upon him. I never learned that this fever was transferred by contagion.

After the occurrence of several cases, I commenced exploring the premises with a view to detect, if possible, a local origin of the malady. The house had not been built many years, and the rooms all looked fresh and cleanly. I went into the cellar. It had a floor of unplaned boards, which lay upon sleepers imbedded in the muddy bottom, and the space between the mud and the boards, for nearly the whole extent of the cellar, was occupied by water. I turned up one board after another, and found the surface which had been exposed to the wet so decayed and soft, that I could thrust the point of my finger some way into it. At one corner of the cellar there was an opening large enough to receive a common sized bucket, and the water seemed deeper there than elsewhere. This water was used, as I learned, for washing the potatoes that were to be eaten at their table. Believing that I had found evidence enough of vegetable decomposition, I made such a statement to the owner of the house as induced him to make a drain to his cellar. I cannot learn that there has been fever in that house but once since, and that was in 1842—there were then two cases, no death.

Many a college student who had fever in the fall term, seemed to have brought the seeds of the disease with him, for he had scarcely got settled at his room when the attack was made. Watchers, who professedly look to patients during the night, if they fall asleep and neglect ventilation for an hour or two are liable to imbibe the effluvia in too concentrated a form to escape. My eldest son watched one night with a young friend, Mr. F., and soon had an attack, and was sick two weeks. About this time there were several cases in the village. All had more or less delirium, one had double consciousness, and one or two, bloody discharges from the bowels.

Will it be questioned whether any of the foregoing cases had the marks of the typhoid or enteric fever of the present time? The scattered petechiæ upon the abdomen were not described till long after the occurrence of the cases at Chebacco and Hamilton, and even now it would not be safe to consider their presence as essential to the typhoid variety, as in many instances, during the whole course of the sickness, where typhoid prevails in a community, this feature is not present; but delirium, deafness, distorted vision, with now and then bloody discharges from the bowels, are leading features in the physiognomy. R. D. Mussey.

Boston, September 27, 1862.

OAKUM AS A SUBSTITUTE FOR LINT, IN GUNSHOT AND OTHER SUPPURATING WOUNDS.

By W. S. W. Ruschenberger, M.D., U.S.N.

[Communicated for the Boston Medical and Surgical Journal.]

Under the above title, Lewis A. Sayre, M.D., Surgeon to the Bellevue Hospital, has published an article in the "*American Medical*

Times" for August 9, 1862, in which he states that he has "for many years past been in the habit of using picked oakum, in all cases of suppurating wounds, particularly in connection with opened joints, where the suppuration is excessive."

The reasons for this practice he briefly states. They are substantially, that one of the objects of lint applied to a suppurating wound, is to absorb the discharge; that lint, being composed partly or entirely of cotton, serves rather to retain than absorb the secretions, and therefore we are to infer that it is not well adapted to the purpose for which it is employed in such cases.

To show that lint has little or no absorbing power, he alleges that a bale of cotton immersed in the river for a month or longer will be found perfectly dry in the centre, thus proving that it will not absorb moisture. "So," he says, "when [cotton? is] placed over a suppurating wound and left some hours, it will be found perfectly dry except at the point of contact; acting, in fact, like a bung in a barrel, or a cork in a bottle—to *prevent* the escape of the pus—which necessarily burrows in different directions, thus forming extensive abscesses, and adding greatly to the danger of the patient; and when removed, the pus will gush out in great quantities. Now, if you place picked oakum over the same wounds, you will find, after the same number of hours, that the oakum is perfectly saturated with pus, and the wound itself perfectly dry and clean—the oakum acting like a syphon, and discharging the contents of the abscess by capillary attraction."

It is not perceived that there is any very striking analogy between lint, whether composed entirely or partly of cotton, and a bale of cotton, or free unmanufactured cotton. If the argument proves anything in the premises, it is, that the capillarity of cotton in bale is much less than that of loose oakum, but it does not prove that the capillarity of lint is inferior to that of oakum. It may not be out of place to remind the reader that capillarity depends more upon the form or arrangement of matter than upon the matter itself; although the capillarity of cotton is comparatively small, we know it is very considerable in lamp and candle wick, and other articles or tissues made of cotton.

"In gun-shot wounds which go through and through a limb, particularly if made with a 'Minié ball,' the whirl or screw of the ball entangles in its thread the muscular fibres and cellular tissue, and separates them from their attachments for a long distance from the real track of the ball itself." Dr. Sayre, "in all such cases where no blood-vessels prevent it," passes an eyed probe through the wound and draws "through it a few fibres of the oakum or tarred rope, which keeps it perfectly free, and the tar is a very excellent antiseptic and removes all unpleasant odor."

How far Dr. Sayre's practice of treating perforating gunshot wounds with "tarred rope" setons may be followed, we may not conjecture, but, admitting the antiseptic properties of tar, we perceive no cogent reason for its adoption. As a general rule the presence of foreign substances in wounds of any kind does not accelerate their healing.

It may be fairly inferred that, in the opinion of Dr. Sayre, lint possesses the same degree of capillary force as cotton, either free or strongly compressed in a bale, and that oakum has much greater capillary power than either cotton or lint, and for this reason he suggests that oakum should be substituted in the place of lint, not in all cases or under all circumstances, but only in gunshot and other suppurating wounds.

Some may ask, what is oakum?

Hemp is spun first into yarns which are imbued with about fifteen per cent. of tar, at a high temperature, and then these yarns are laid or twisted into rope. The tar is applied for the purpose of diminishing as far as possible the capillary force of the rope, and, by thus excluding the moisture to which it is constantly exposed, of retarding its decay. But in spite of the presence of the tar, rope is found to lose its tenacity or strength in the course of from one to ten years, according to the uses to which it may be applied, and being no longer serviceable as rope, it is cut up, and shredded and converted into oakum, which is used for caulking or filling all seams or joints in ships, for the purpose of excluding moisture.

Tow is the refuse or scrapings of hemp or flax.

In order to obtain an idea of the comparative absorbent power or capillary force of oakum, cotton, lint and tow, small parcels of these articles, of ascertained weight and dimensions, were gently placed on the surface of water in a basin, and carefully weighed again after removal. The weight of water absorbed by each, thus ascertained, is stated in the following table:—

	Weight.	Dimensions.	Time in contact with water.	Weight of water absorbed.
Cotton (wool) . .	40 grs.	3 in. diam.	1 hour 10 m.	8 grs. = 1-5
Oakum	"	2½ "	do. do.	10 " = ¼
Tow (from hemp)	"	2½ "	do. do.	250 " = 6.25 tms.
Coarse Lint (shoddy)	"	2½ "	1 minute	280 " = 7 "
Scraped Lint . .	"	2½ "	instantly	298 " = 7.45 "
Patent Lint . . .	"	1¾ by 3 in.	4 minutes	299 " = 7.47 "

Forty grains of cotton submerged and slightly squeezed under water for a few seconds, was found to retain, without dripping, 270 grains; and an equal weight of oakum treated in the same manner, only 94 grains of water. The oakum retained little more than twice its weight, and the cotton nearly seven times its weight of water.

The inference from these experiments is that the capillary force of patent lint is nearly thirty times, and that of tow twenty-five times greater than oakum; and the capillary force of oakum is only one fifth greater than that of cotton. Oakum absorbed one fourth, and cotton one fifth of its weight; but tow 6·25 times, coarse lint 7 times, scraped lint 7·45 times, and patent lint 7·47 times its weight of water.

If the property of capillarity alone is to determine the choice of tissue or substance for covering suppurating wounds, any description of lint or tow is to be preferred to oakum.

Tow has been long employed as an outside dressing or recipient of profuse discharges; and also as a swab in cleansing offensive suppurating wounds, where sponge was not sufficiently abundant to be expended in this way. The objection to tow is, that there are apt to be sharp or hard spiculæ adhering amongst its fibres, which give pain when brought against a sensitive surface; but this objection may be obviated by carefully selecting and carding the substance. A better substitute for sponge for cleansing purposes in surgery is cotton wool, which, saturated with soap suds, or simply with tepid water, and held in a dressing forceps, forms an admirably soft application that may be used where the finest sponge would be found by the patient rough and harsh. Indeed, considerations of cleanliness and of avoiding the diffusion of morbific matters from patient to patient, suggest that sponge used once as a detergent implement should not be used in the case of any other individual, and not too often on the same person. Cotton or tow forms a detergent implement so cheap that it may be renewed at every dressing, and ought to be substituted for sponge without any reference to cost, for cleansing purposes.

It is said that cotton or lint placed over a suppurating wound serves to *prevent* the escape of pus, and that oakum should be substituted. But, it seems that oakum as well as lint may block the way and hinder the flow of the escaping liquids, if not removed when saturated. Then why should a copiously discharging wound be enveloped in any capillary material; why not permit the discharge to flow without impediment of any kind? Any contrivance which would keep the wounded part at a normal temperature, whether in the form of oiled silk, or other tissue not readily permeated by moisture, or in shape of a simple veil or shield from flies in hot weather, might prove more salutary than the effects of a bunch or pledget of wiry oakum secured over it by bandage or otherwise.

Supposing that oakum possesses all the qualities claimed for it in the instances specified, it cannot be regarded as a substitute for patent lint, because there is often necessity for just such a pliant tissue to serve as the vehicle in the application of ointments to morbid surfaces—such as blisters, for example.

Substitutes are almost always defective expedients. Whether they are adopted from parsimony, poverty or other reason, they rarely satisfy the requirements they are employed to meet. The workman who uses implements in all respects adapted to his vocation produces more perfect results than he who labors with a paucity of tools, and hence, driven to expedients, is compelled to require from his awl the work of a gimlet.

Oakum is, doubtless, applicable as a substitute to some ends. It may answer as an external dressing, a mere recipient of liquid discharges; but for such purpose, as it costs much more and has less capillarity, it is a poor substitute for tow. Its application to the uses to which patent lint is especially adapted could be suggested only where no soft tissue is procurable. Canton flannel would answer the place of patent lint better than oakum; but comparing their adaptability to the object in view, the propriety of substituting Canton flannel, at thirty-five cents the square yard, for patent lint, while this is procurable at forty cents, does not commend itself to notice.

AMPUTATIONS AND OTHER MAJOR OPERATIONS.

FROM an admirable letter by Dr. HENRY W. DAVIS, addressed, from the "Army of the Tennessee," to Dr. Stormont, Secretary of the Esculapian Society, and published in the *Chicago Medical Examiner*, we make the following extracts:—

"This is a heavy text, but I will try to be brief. Experience has taught me that however much good surgery may be taught, there is a good deal of bad, practised; and a vast amount of unnecessary mutilation. The first question is: What amount of injury will justify an operation? This is, of course, dependent on a thousand outside influences, which must be thrown on the balance for and against. On the field, where an operation is unavoidable, the *sooner the better.* If reaction is slow, *give chloroform;* relieve the pain; remove the effects of the shock; unloose the vital powers, which struggle hopelessly against an overwhelming injury; and then the sooner the system is relieved from the torn and lacerated limb, and a clean cut supplies its place, the better for the patient and the surgeon. *Primary operations are alone successful in saving life,* where it is life or limb, and they must be performed prior to, or during the stage of reaction. They must be performed on the field, before the removal of the patient, or the chances are lessened a thousand fold. There are what are called secondary operations. These are made up of the *removal of a limb* (after the stage of healthy reaction is passed), *and the death of the patient.* I will endeavor to make myself understood without being prolix.

"When a patient suffers from a compound injury made up of bruised and lacerated flesh and broken bone, without involving the loss of the important vessels, the rule is to *amputate;* the *books* say amputate; professors of surgery, who visit our battle fields with a score of students at their heels, say amputate; and the students at the professor's heels *do* amputate. It matters not to them whether the wound is four hours or four days old, off goes the limb, and out goes the patient; for I challenge denial when I assert that ninety-nine of every hundred of those who were operated on during the irritative stage died. This irritative condition commences from twelve to forty-eight hours after the reception of the injury, and continues from seven to twenty days, or longer, according to circumstances; and there is no opportunity for the use of the knife during that period, be it long or short. Here, among these cases, conservative surgery finds its field of labor, and the conservative surgeon his element. The knife, for the removal of a limb, is foreign to his thoughts; but every energy is exercised, not only to save life, but to save the important member. He watches his patient closely; sustains his strength; guards against accidents; notes his pulse; and, finally, when the system has become accustomed to the injury, and manifests its regained power and equalized action, by the formation of healthy pus, he asks himself the question, 'How little can I venture to throw away?' and acts accordingly. Conservatism, *even in* military surgery, will stand the test; and no sooner is the *itch* for cutting allayed, by an overplus of work, than the most devoted tinkerer with the knife is more disposed to try to save a limb than acquire skill. It may be that I am reviewing only *two* of the *three* sides to the question, and am not judging impartially; but time will, I believe, bear me out fully in all important points.

"At Donelson, I worked for four days, in the rear of my division, most of the time dressing the wounds on the spot where the patient fell. During that fight, I dressed 118 wounds, involving many minor operations, and performed 16 capital operations. Not one of the operations performed on the field had an unfavorable termination, while of those where I was *compelled*, as a *dernier resort*, to use the knife two days after the battle or longer, *scarce one lived*. It is true the latter were few, but they sufficed to prove to me conclusively, that when the first opportunity has been lost, the second rarely or never presents itself: unless connected with some untoward circumstances, rendering extreme measures necessary. Your patient will die if you operate, and if he survives the shock, passes the irritative stage, aggravated by transportation, the conservative surgeon will always have sufficient faith in the skill of nature to help him save a limb, and with it a life.

"I will pass from Donelson to the post hospital at Savanna, where our worthy President found me with 1685 wounded soldiers, from the battle field of Shiloh. The surgery at this point was conservative through compulsion. Overwhelmed with the rush of patients, and being compelled to create something out of nothing, it was many days before I could give a thought to other than administrative duties belonging to my position. Among the assistants assigned me were only *two* who had any practical knowledge of surgery. On visiting the hospitals, and taking a general view of all the cases, I could only say, '*Wait*, give them time.' For eight or ten days after the battle. I still said, 'Wait.' Many of the wounds were destructive in their character, and the knife was the only remedy; still I begged them to wait; because not a single case had yet recovered from the shock, or passed the irritative stage which followed. The pulse was rapid and feverish; the face flushed; the wound angry, and discharging a bloody serous fluid; the immediate and adjacent parts to the injury were sensitive to the touch, and the whole system controlled by it, and morbidly irritable. I was winning no enviable reputation fast; and yet, knowing this, I begged them to still wait. On the second Monday following the Sunday's fight, four amputations—one of the thigh, one of the leg, and two of the arm—were performed in a hospital, under the control of two surgeons from the East. On the next day, there were *three* funerals, and on Wednesday *one*. The four cases *died*. The surgeons were alarmed, as they had a right to be; and again I said '*wait*,' so far as the *rest* were concerned; and wait they did. There were causes operating on these cases, and against them, that I will briefly narrate. Many of the wounded were stricken down on Sunday, and lay on the field for many hours, until the lost ground was retaken. They were piled into ambulances, taken to the boat, and shipped to Savanna. Here they had shelter and food; but long before we could secure the comforts which are indispensable to the *amputating* room, the first *chance* had passed by, and the only hope was to await the second. From the twelfth to the fourteenth day, I commenced work; wine, tonics and good food had been doing their work, silently but surely; and I trust I may say, without egotism, that many a poor but gallant fellow is living to bless that word, *wait*. It was at this time that Dr. TenBrook dropped in, and put his shoulder to the wheel, with an energy and good will that lifted *me* out of the slough of despond, into which I was fast drifting, together with a couple of hospitals full of wounded. There were not many operations during his stay; but they were mainly of a character calculated to *illustrate* the subject in hand. There were some amputations of the arm, fore-arm, thigh, and leg. The patients, with but a single exception, had not suffered by the delay, and with that exception, they all recovered from the operation. There was a class of cases of greater interest, from the fact that the injuries primarily were such as to justify amputation; and had they been met at the proper time, with ordinary facilities, even the *conservative* would have been inclined to remove the injured limb. As it was, they slipped through the hands of the surgeon, until they were seen with a view to the performance of an operation which would save the limb without increasing the risk to the patient's life. With Dr. TenBrook the following operations were performed:—

"Lieut. S., gun-shot wound, fracturing the tibia for 5½ or six inches, breaking it into fragments. Twice had a *brace* of *Brigade*-Surgeons met to cut it off, and twice did I enter a protest; the second time, in a very unmistakable manner. The time was not yet for operation, and amputation was *not* the *operation*. After extension was made sufficient to adjust the broken, but not comminuted fibula, and allowing time sufficient to allay the local and general irritability, an operation was performed, by which the removal of all the fragments of bone was effected, and the ends of the upper and lower fragments sawed off; under the influence of chloroform he bore the operation well. A simple fracture-box was applied, which allowed complete dressings; after a few weeks, he left for home, with a certain prospect of recovery, with a good, reliable, and useful leg.

"J. V. H., a private, was injured by a rifle ball, which shattered the ulna, for several inches just below the elbow-joint. The suppurative stage was fully established; his appetite good; and his spirits rather above par. It was one of those cases which might have been operated on a week previous, and which would not have suffered from a few days' delay. In company with Dr. TenBrook, we witnessed the operation, as performed by Dr. ———, the Surgeon-General from Wisconsin. The shattered fragments were removed; the ends of the shaft above and below clipped off; and the wound closed. In this case the capsular ligament was uninjured, and the integrity of the joint undisturbed. The recovery was rapid and complete. There were several cases similar to these, which Dr. TenBrook can give you in detail; and among them all, I do not know of a single case that terminated unfavorably.

"During the week following the departure of Dr. T., I was visited by Prof. Johnson, of Chicago, Lind University. Time had settled the fate and determined the character of many of the surgical cases in the hospitals, and as the weather was propitious, and all things forward, we put in a week of honest, earnest, and successful labor. Many important operations were performed, carrying the knife and saw through almost the entire range of military surgery. The amputations were few, and bore a small proportion to the aggregate. The question as to the advantages of the circular over the flap operation was fully discussed, and specimens of both exhibited; and notwithstanding Prof. Johnson is high authority with me, still I will have to see better recoveries and neater stumps than I have yet, ere I give up the neat, safe, and reliable stump, resulting from the circular operation. There were three resections of the humerus, for injuries to the shoulder-joint; all did well up to the time of my departure, and each would have justified *amputation* on the field. * * * * * * Some of the ideas deduced from experience will not accord with the surgery of the wars of Napoleon or the Crimea. There is too much surgery practised, such as it is, and too many mutilations are justified by recognized authority. The surgical history of the army from the North-west is being, or will be, written; and the writer has a splendid theme to urge on his pen. It is to be hoped that the historian will be just and fearless, in the performance of his duty—not his task; and that the Department will never again commit the gross errors which have marked the campaign of 1861–2."

Army Medical Intelligence.

Carrollton, Louisiana,
Sept. 18, 1862.

To the Surgeon-General.

Dear Sir,—Since writing to you before, the only event breaking in upon our quiet routine is removing from Baton Rouge to this place.

We have now been here about three weeks, and begin to feel like old settlers. My regiment, as a whole, is slowly climbing up from out the slough of prostration, into which it was plunged by the Vicksburg swamp. But I find convalescence is slow and halting, the system in many cases seeming so thoroughly poisoned as to leave hardly vitality enough for recovery even after the fever is entirely checked. Hence, not a few of my poor fellows linger along for a while in a sort of doubtful, vaccilating convalescence, now a little better and then losing again, until a little attack of diarrhœa or something of the kind tips the scale and they drop away suddenly. Very few exhibit that vigorous recuperative power so often seen in recovery from our New England typhoid fevers.

I occupy the Court House as a hospital, and as soon as I get the bedsteads, mattrasses, &c. promised me by our new Medical Director, Dr. McCormick (who is taking hold of the work here with great energy and practical good sense), I shall feel more nearly satisfied with the accommodations and comforts I can give my sick than before since I came to this department.

My own health is much improved since I came to Carrollton, and I find the facilities for the study in my own person of the anatomy of the skeleton, are decreasing fast. The latest reminder of the swamp came in the form of a perfect specimen of periodical neuralgia in my right eye and brow, which for nearly a week rendered me unfit for anything during the forenoon. But thanks to that king of drugs, sulphate of quinine, I am now "all right." I have never been sick in bed really but one day, since I left Massachusetts, and then I got up at 5, P.M., and moved my hospital of one hundred and odd patients before the "clock tolled the hour for retiring." There have been many days, however, that had I been in old Haverhill, my favorite patients would have called in vain for my services.

Two of my wounded officers, Lieutenants Gardner and Tenney, have gone home, so you may quite likely see them. Both of them were doing finely when they left. Lieutenant Howe, with both his thighs shot through, one femur as well as one rib being fractured, has done most magnificently. The wounds from the balls are nearly healed, and the fracture of the femur is uniting splendidly. The best thing I did after the battle of Baton Rouge, was to do nothing in this case—and I took the responsibility with not a little fear and trembling. But after I had decided not to operate at first, I was determined my ideas should have a fair trial, so I kept him with me after all my other wounded had gone. I hope soon he will also go home to his friends until again able for active service.

A month or so ago, I had quite serious ideas of resigning next month, but according to the latest news it does not seem at all appropriate for any one who can be of any service to the Union cause to give back now. No, Doctor, it would seem too much like deserting a friend in distress to resign at present, if I am able to do my duty.

The papers have told of the appointment of *two* second Assistant-

Surgeons for this regiment, so I judge there must have been some mistake in the first, and I haven't yet seen the second. When he comes he will probably be at once detached from the regiment, at some fort or hospital, as there is quite a demand for surgeons for such service. Dr. Holt and I are not now overworked. He is at the camp, which is five miles away, and attends to the sick in quarters (about 60 unfit for duty), while I take charge of the 120 in hospital. As the numbers indicate, I take all who are much ill into the hospital. I think they do better so. I remain, with the highest respect,

Yours most sincerely, S. K. Towle,
Surgeon 30th Regiment Mass. Vols.

Frederick, Maryland,
Sept. 13, 1862.

To the Surgeon-General.

Dear Sir,—I do not remember having written to you since the regiment was at Dawfuskie Island in South Carolina, although from time to time I promised myself the pleasure of doing so. The constant excuse of "want of time to write as I wished," applied all along—for I attempted on several different occasions to write you a letter, but met with interruption each time. The same excuse would apply equally well even now, for we are now lying in a field within hearing of cannonading, and momentarily expecting orders—but just liberated from captivity, I feel that I must account for myself in some way, and will make use of the inconveniences of my position only as an apology for using a lead pencil instead of ink, which cannot be had at this moment.

After leaving Dawfuskie Island, towards the last part of May, the regiment touched at Hilton head, and thence went to James Island, where, after a month of "life in swampy land," enlivened by frequent skirmishes, and rendered memorable by the battle of June 16th, in which our attempt to take by assault a strong earthwork of whose position, strength and surroundings we knew nothing, resulted in the useless slaughter of many men, we eventually learned that Charleston could not be entered just at that time; and after having been tossed about from one transport vessel to another for some time, the need of troops in General McClellan's army, occasioned by the famous week's fighting before Richmond, induced our transfer from Hilton head to Newport News, where we remained from the 16th of July to August 4th. On the 4th August, sailing, nobody knew whither, we left Newport News, and, landing at Acquia Creek went to Fredericksburg by railroad, but it was evident that we would not be permitted to rest there; and after almost a week spent in continually changing camp about Fredericksburg, and "*cutting down*" what little baggage remained after the "*cutting down*" we had been obliged to submit to at Newport News, we again started on a mysterious march, and reached Culpepper some days after the battle of Cedar Mountain. At Newport News we had received orders to leave behind, "in store," all baggage that was not indispensably necessary, and at Fredericksburg the orders for the cutting down of the baggage were so peremptory that the officers were obliged to store their personal effects, excepting only what they could carry themselves. And as the insufficiency of transportation from Hilton head to Newport News had robbed me of the ambulance wagons and transport wagons received from the State, I was obliged to look to the Quartermaster for the transportation of what medical supplies I deemed indispensably necessary, storing what could not be carried. We started on our journey without having a single ambulance wagon for the whole division.

Our stay in the neighborhood of Culpepper was not of long duration. The men were foot-sore and fatigued, but they were destined to have no rest yet, and their forced march to Culpepper was merely a precursor of another forced march backward again—for at midnight of the 18th ult., a sudden "skedaddle" was made towards the forts of the Rappahannock, and indeed ever since our leaving Fredericksburg we have been on the march, alternately skedaddling and pursuing.

About noon of the 26th August, we reached, in the course of our rambles, Warrenton Station. On the following morning it was ascertained that the Confederates were in our rear, that they had burned bridges on the railroad, had captured and destroyed a very long train of heavily laden cars, and we set out forthwith for Manassas.

On the Potomac, Sept. 20, 1862.—My attempt to finish a letter on the 13th, was, as you will perceive, a failure. But lest I might have to postpone a letter to an indefinite period, should I wait for an opportunity to finish one at a single sitting, I will take the liberty of finishing it by instalments. "Secesh" is now across the river—a portion of our troops have crossed after them, and we are now supporting a battery which at this moment is banging away from the Maryland side.

In what I wrote on the 13th I had commenced the journey from Warrenton Station to Bull Run. On the 29th we were in the field—on the 30th we opened the fight, and on the evening of the 30th I was a prisoner, surrounded with dead and dying, and wondering that I was not one of the number; for apart from the dangers on the field itself, where a proper attention to duty on that day required that I should be exposed to the shot and shell as much as others, the first intimation I had of our being "surrounded" at the place to which I had eventually got the wounded (near a house), was a volley of musquetry poured into our midst, and the dead bodies of many who a few moments before were but slightly wounded, testified to the effects of it. From this time to the time when we eventually succeeded in obtaining transportation for the wounded to Washington, we had what may well be termed "hard times." During the first few days we could obtain neither food nor dressings. We had nobody to bring wood or water for the wounded, or give them proper attendance. And although generally the Confederates were liberal of kind words, it seems they had nothing else to give us.

After the first few days, however, Dr. Coolidge (or Couldridge, I know not which) a Medical Inspector, U.S.A., arrived on the field, and was surprised at the state of things as he found them, so different from what he had been led to expect, from what had been told him. And to his untiring efforts are we indebted for having been able to get away even as early as we did, for he took hold "with a will," ignored *red tape* altogether, and in the most self-sacrificing manner devoted himself wholly and solely to the relief of the hundreds who were perishing from what seemed to be the neglect of government. Food and medicines in abundance were soon on hand, and he thought not of rest until he had succeeded in removing within our own lines every man that could bear transportation.

Much is due to him for the part he performed, and I trust his merit may be rewarded. While on the field, during the battle, I had taken off my coat so as to be unimpeded in attending to the wounded, and while removing them afterwards, when obliged to shift position, I forgot all about it, never thinking of either coat, horse or blankets until night when I found myself in my shirt sleeves, without any means of keeping myself warm through the night; and it was thus that I spent the whole of my captivity.

On the 8th inst. I succeeded in obtaining ambulance wagons enough to transport what wounded remained at the building in which I was principally engaged, towards Washington, and travelling through the night, we reached Fairfax Seminary Hospital, near Alexandria, about 2, A.M., of the 9th. Learning where the regiment was, I joined it at once, and was delighted with the sight of many more friends than I supposed had escaped from the slaughter of the 30th ult.

On the Monday after the battle of Bull Run No. 2, the regiment was again engaged at Chantilly, where it lost heavily, but I of course was not there, and the knowledge that Dr. Snow, too, had been taken prisoner, which I learned on the 2d or 3d day after the battle, made me the more anxious to rejoin the regiment as soon as possible. Dr. Snow was enabled to join the regiment a few days before I could. Previously to my leaving the battle field for Alexandria, a Pennsylvania regiment, the 155th, arrived for the purpose of burying the dead. The bodies lay in heaps in the woods, and met one at almost every step, and the air was filled with the smell of putrefying bodies; but of all who lay there (the Confederates carried off and buried their own) I did not see one whose pockets had not been picked or which had not been robbed of its shoes.

When I joined the regiment it was on the march towards Frederick City, and every day since it has either been in a fight or expecting one. At the battle of South Mountain we had but few men wounded. On the 17th, the killed and wounded amounted to 42. Since then we have lost none.

Dr. Snow did not feel well when we were about to pass through Sharpsburg, and he has therefore been left behind in charge of those who were wounded in the battle near that town, and I am now alone. Dr. Snow has ever attended to his duty well, and deserves honorable mention; but I feel it particularly incumbent upon me to speak of the hospital Steward, Dr. John C. Barrington. While Dr. Snow and I were captives at Bull Run, the whole charge of the regiment devolved upon him. During the battle at Chantilly he attended to the wounded. During the intervening period previously to our joining the regiment, he was its only reliance, and I consider myself and the regiment fortunate in having secured the services of such a man.

The fact that at any moment orders may start us off again, as well as the fact that this letter has already, in spite of my attempt at condensation, become quite a lengthy one, will prevent me from extending it any farther.

It would be useless for me to attempt to give a list of the killed and wounded, as for much of the time I was not with the regiment, and should therefore have to send a list for which I could not vouch; while, again, the regiment is in such a bad condition from want of officers, that it is difficult to determine whether the "missing" became missing in battle, or straggled off to avoid battle.

We have neither colonel, lieutenant-colonel, nor major. *Three* companies have *no commissioned* officers—*four* have only *one* each, and the other *three, two* each. The regiment is therefore in a very bad state, and unless the Governor will furnish us with a good head as the commencement of a re-organization, I fear the regiment will become wholly demoralized. However, trusting that all may yet be well, I close with respect.

P. A. O'Connell,
Surgeon 28th Mass. Regiment.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, OCTOBER 9, 1862.

Abuse of Army Ambulances.—In the interesting communication of Dr. Bowditch, on the subject of the want of system in the ambulance arrangements of the United States Army, published by us two weeks since, several details of the recklessness of the drivers, as mentioned by him at the meeting of the Society for Medical Improvement, were omitted. In our opinion these facts should be known, as furnishing additional evidence of the need of thorough reform in this department. Dr. Bowditch particularly dwelt upon the malicious pleasure which the drunken drivers took in doing all the damage they could to the valuable vehicles entrusted to them, by the most unnecessary collisions. One special source of amusement to them was to try to drive the pole of the ambulance into the back of the one in front, and it was a particularly gratifying evidence of skill, if the driver succeeded in striking the head of the cask placed beneath the seats and projecting slightly at the back of the vehicle, and intended to hold water for the use of the wounded. This triumphant tilt was run by the man in charge of the ambulance in which Dr. Bowditch was riding, with the successful result of knocking it from its attachments into the road, where it was left, as none of the men would take the trouble to replace it. We say casks *intended* to hold water. In the present instance, it happened that not one in the whole train would do this; they had all been allowed to dry until they were as leaky as so many sieves; so that their loss was not a matter of such moment as it might have been. Mentioning the circumstance a few days since to a friend who had been in the army, he remarked, that he never saw an ambulance cask yet that *would* hold water.

Dr. Bowditch also referred to the extreme danger, incurred by the sleepy and drunken drivers, of running their vehicles off the precipitous banks on either side of the road, and said that the leader of the train informed him that, a short time before, he barely had time to turn aside the horses attached to an ambulance, full of wounded, from the brink of a precipice twenty feet high, over which the whole would have gone the next moment. The driver was asleep! Truly who can doubt the need of a thorough reform of such outrageous abuses?

Thus much had we written, when we received the following communication from Dr. Bowditch, to which we gladly give place:—

It is painful, yet it ought not to surprise us, to see how many mistakes have necessarily arisen, during this terrible rebellion, owing, first, to the utter disbelief on the part of the North in the really revolutionary views of the Southern leaders; second, to our own ignorance of the arts of war, and of the means of alleviating the sufferings incident thereto; and third, to the fact that, in very many instances, we still endeavor to manage an army of more than half a million of men by rules of war established for a few thousands. In nothing, perhaps, have we suffered more, from the last two causes, than in the whole arrangements for the transportation and care of the sick and wounded on and from the battle-field. It would, *a priori*, seem natural that the first thought of a truly paternal government, after having made arrangements to strike a decisive blow against an enemy, would be to make most ample provision to alleviate the sufferings of those of its children who would necessarily be doomed to endure much, even under the best system that could be devised. No *extra* suffering, and every alleviation of absolute misery, should be the watchword on such an occasion. I regret extremely to feel that, judged by this rule, our government has heretofore totally failed in one department, at least, of its service, viz., the ambulance system, or no system, as it may more properly be called.

The extraordinary statements by Dr. Coolidge, Medical Director at Centreville, that the drivers of the ambulances broke into the hospital stores, drank the liquors and would not help the wounded until whiskey was given; my own account (see this JOURNAL, Sept. 25) of the abominable misdeeds of these same or similar miscreants, during our excursion to relieve the starving and wounded at Chantilly, near Centreville; and finally, numerous individual statements (*New York Times* and also *Medical Times*), confirmatory of the same fact of gross misconduct, and of the essentially degraded character of most of these drivers; all these things are my reason for bringing the subject again before the readers of the JOURNAL. *Some change must be effected.* I am thankful to see that correspondents in different journals in this city and New York, are discussing various plans, and as the great object we now ought to have in view is to have *some* plan, instead of *chaos*, as at present, I write the following brief abstract of what foreign governments and our own have done in the premises, and will finish with giving what I know to be the carefully thought-out suggestions of the present humane and able Surgeon-General Hammond.

On the 2d of April, 1855—only six years ago—Jefferson Davis issued his instructions to Majors Delafield and Mordecai, and Capt. G. B. McClellan, to visit Europe for the purpose of learning everything possible, relative to modern systems of warfare. The Crimean war was then in full operation, and Sebastopol was besieged. Every subject connected with the carrying on of war was carefully suggested for investigation in the instructions given to the Committee. One item among them was as follows:—"The kind of ambulances or other means used for transporting the sick and wounded."

Capt. (now United States Major-General) McClellan, makes no allusion to the subject in his "Armies of Europe." Of Major Mordecai's opinion, I know nothing. But the following, from Major Delafield's report (*Senate Document*, June, 1860), becomes important in considering the question of what we should do, in the present emergency.

Major D. says, page 68, that "never before was so much attention paid to this branch of the military service" as during this celebrated siege, and in front of Sebastopol. And in this connection he pays a high tribute to that remarkable woman, Florence Nightingale, "as the foundation of power, from which all the new arrangements and appliances emanated." It seems that several kinds of *carriages* were used among the allied and Russian armies, according to the ideas of those having the control of each. The smaller ones, those capable of passing and repassing anywhere, were the best. Wrought-iron *chairs* or *litters*, two hung like *pack-saddles* upon mules' backs, were of great service. One hundred and sixteen chairs or litters were in use at the bloody battle of Inkermann, and sufficed to transport all the men in a very short time after the action terminated; "proving," says Major D., "that they combined greater advantages than any previous arrangement."

The English organized a "brigade for hospital conveyance"—(*Report*, p. 75), which was new in *personnel* and *materiel*. Its train consisted of twenty carts, five store wagons, one forge cart, and one cart for stoves and portable forge." The carts were for two, the wagons for four horses. The whole were for twelve regiments. The plan was contrived so that where a gun could go, a carriage could follow.

The following extract (p. 76), I desire to bring to the notice of the reader. Jefferson Davis undoubtedly took counsel from the whole of this valuable report, in plotting his treason. Our Government seem to have lost sight of its valuable suggestions, in one instance, at least, as is now well proved:—"The whole of this train was under the *Staff-Surgeon* of the division; none of the wagons, carts or drivers being subject to the orders of any other department, except with the authority of the General of Division, who best knew when to break up or sacrifice any part of his entire means of transport. *This provision is worthy of our attention. The details and requirements of this part of the service should not constitute a part of the general transport service of the army, as heretofore has been the case in our service. No person can so well preserve the efficiency of the surgical and medical apparatus, as he who best knows its uses.*"

The italics are my own, and I would simply add that there never was a more striking exemplification of the truth of these remarks by Major Delafield, than what I saw, in striking contrast to them, during my recent ambulance journey to Centreville. Among other things, at that time, I observed that of the small casks intended for water, and two of which were prepared for each wagon, not one seemed to contain water; and I was informed by the army surgeon in command, that they all leaked! What does the Quartermaster care for them? The absolute need of water for the thirsty, wounded or dying soldiers, would never be dreamed of by that officer. It is the surgeon alone who sees, and as it were feels, the agony the wounded soldier suffers, when deprived of this luxury.

The *personnel* of this English train consists of one Sergeant Major, four other non-commissioned officers, and sixty-nine drivers—total, seventy-four persons to twenty-seven carriages, or scarcely three to each carriage; "which," adds Major D. (p. 76), "gives the smallest admissible number of supernumerary drivers." All the nations of Europe "have their own ambulance and hospital store wagons, each possessing its peculiar merit, adapting them to their respective armies."

In addition to these, the *Staff Surgeon*, while on the march, has a mule with "capital instruments" attached to his immediate service.

What ought we to do? Certainly we ought to adopt all the good which past experience has shown to exist in any of these ambulance corps, or modify them to suit the peculiar conditions of our army.

A plan has been devised by the Surgeon-General of the United States Army, and months ago was urged upon Secretary Stanton, and declined by him and General Halleck. Since the terrible sufferings, lately endured by our soldiers, and foretold in a great degree by Surgeon Hammond, that gentleman has again urged on the government the necessity of some action. The government still delays, or if it has acted officially, it is only within the past week or two, and, so far as my knowledge extends, nothing has yet been publicly done in the matter.

I well know that reports come to us through the public prints, that General McClellan is doing something about it. I have, from official sources, learned that the plans of General McClellan are, as it is thought, "insufficient. 1st, Because the drivers, &c. are simply soldiers detached for the purpose; and, 2d, the plan is not sufficiently comprehensive."

What the Surgeon-General wants, "is a corps composed of men especially enlisted for Hospital and Ambulance service, with officers commissioned purposely to command them, and who shall have the entire charge, under the medical officers, of the ambulance wagons, transport carts, &c., and all the many departments of hospitals; a corps upon the basis of two men to each company of one hundred men, a hospital Captain, two hospital Lieutenants, and five hospital Sergeants, to be drilled, uniformed and equipped according to certain regulations. The whole should be commanded by a Hospital Commander. This is substantially the plan followed in the European armies."

Will not our government allow this, or some other beneficent plan, to be followed out? HENRY I. BOWDITCH.

INSPECTION OF GENERAL HOSPITALS OF THE ARMY.—The following letter has been addressed to certain of our most distinguished surgeons throughout the country.

OFFICE OF THE U. S. SANITARY COMMISSION,
498 BROADWAY, NEW YORK, September 24, 1862.

SIR,—The Sanitary Commission propose to commence on the —— of October, a special inspection of the General Hospitals of the Army.

These are forty-seven in number, in the District of Columbia alone, and perhaps as many more in all other parts of the country; they contain, at this time, not less than 50,000 sick and wounded.

As this proposed service is additional to the duties of this nature heretofore performed by the Commission, and is for a higher purpose, they wish to secure the assistance of the best medical and surgical ability in the country for the work—as none but men of established position and character are able to carry the moral weight and influence with the Army Surgeons, essential to the practical success of this effort to secure the highest standard of professional excellence in the management of Military Hospitals.

The Commission propose to keep six inspectors constantly employed east and west, and to accept the services of such as can serve not less than a fortnight, whilst they ask no service for more than one month. The most they can offer the profession in the way of remuneration is $250 per month.

The scheme of this Inspection is for the six months ending May 1st, 1863.

You are respectfully requested to designate before the —— October, when the books will close, the period, if any, for which you are willing to serve, and the precise date when you can most conveniently render the service. The Commission will, however, consider it a special favor if you will allow them to designate the time when your services will be most acceptable. If you can serve for two terms of a fortnight each, at an interval of three months, please to state. For the Western hospitals a month's service would be preferred.

The Commission is anxious that this duty shall be undertaken with the earnest and unselfish purpose of securing for our sick and wounded soldiers thorough and able hospital treatment, by the detection and removal of all defects in administration or professional care susceptible of remedy or improvement.

Full instructions as to the form of the report required will be furnished at the proper time.

By order of the Executive Committee.

Very respectfully, your obedient servants,
W. H. Van Buren, M.D.
C. R. Agnew, M.D.
Wolcott Gibbs, M.D.

Dr. Henry G. Clark, of this city, has been appointed Chief of the Corps of Inspectors. It is a gratifying fact, that of the seventy-two gentlemen, invited to serve on this Commission, thirty are residents of New England. Drs. Clark, Bowditch and Ellis, left for Washington on Tuesday last, to begin at once the work of inspection.

New York Ophthalmic Hospital.—The report of the surgeons of this Institution, for the years 1860–61, has just been published. In connection with the report, is a catalogue of the students of the New York Ophthalmic School from 1852 to 1862, and also the Anniversary Address, at the close of the last session, by Dr. James L. Kiernan. Whole number of cases treated during the two years, to December 31, 1861, 1937, including 75 remaining under treatment Jan. 1, 1860.

The Annual Meeting of the Vermont Medical Society will be holden at Montpelier, on the 15th and 16th days of October.

Dr. Edward Jarvis, of Dorchester, has been detached by the Surgeon-General to visit the various Camps in the State, and report on their sanitary condition.

In the London *Medical Times and Gazette* of Aug. 30th, extracts are given from a new Manual of Military Surgery, by Dr. J. J. Chisolm, of Charleston, S. C.

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, October 4th, 1862.

DEATHS.

	Males.	*Females*	*Total.*
Deaths during the week, ...	50	43	93
Average Mortality of the corresponding weeks of the ten years, 1851–1861,	44.1	42.5	86.6
Average corrected to increased population, ...	..	..	95.52
Deaths of persons above 90, ...	..	0	0

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
13	13	2	2	2	0	3	2	1

Communications Received.—Report of Cases in the Presbyterian Church Hospital, Georgetown, D. C.

Died,—At East Boston, on the 3d inst., Dr. Rufus L. Hinckley, aged 45 years.

Deaths in Boston for the week ending Saturday noon, October 4th, 93. Males, 50—Females, 43. Accident, 2—apoplexy, 1—asthma, 1—inflammation of the bowels, 2—congestion of the brain, 2—disease of the brain, 2—bronchitis, 1—cancer, 1—cholera infantum, 13—consumption, 13—convulsions, 2—croup, 2—debility, 1—diarrhœa, 4—diphtheria, 1—dropsy, 5—dropsy of the brain, 3—drowned, 1—dysentery, 3—scarlet fever, 2—typhoid fever, 2—gastritis, 3—disease of the heart, 3—homicide, 2—infantile disease, 3—intemperance, 1—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 2—marasmus, 2—measles, 1—paralysis, 2—scrofula, 1—suicide, 1—unknown, 6.

Under 5 years of age, 44—between 5 and 20 years, 6—between 20 and 40 years, 15—between 40 and 60 years, 22—above 60 years, 6. Born in the United States, 70—Ireland, 17—other places, 6.

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TRANSMISSION OF SYPHILIS FROM THE FATHER TO THE FŒTUS, AND FROM THE FŒTUS TO THE MOTHER.

[Translated from the *Gazette des Hopitaux*.]

CAN the seminal fluid of a man communicate the germ of syphilis to the product of conception? Can a fœtus, thus infected, in its turn impart this disease to the mother during gestation? These are questions which Dr. Beyran has been led to propose from the observation of a case which he has had the kindness to communicate, and which we will shortly relate. But first we will let our friend himself lay down the terms of the problem he proposes to elucidate.

To resolve this problem, he says, it does not seem to me necessary to take into account the well-known influence which the father has, in the organization of the product of conception. This influence is as great as it is unequivocal, and every day, so to speak, some new fact adds its weight to strengthen this opinion; so that we might say that every germ contains or is capable of containing the principle of most of the peculiarities of its parents, anterior to its development, and that it is the summing up and the essence of them. In fact, in life do we not see on every side a thousand proofs of the homogeneity and consubstantiality which unite son or daughter to the father? Such as the similarity of features, the peculiar resemblances, the temperament, idiosyncrasy, liability to certain diseases, to say nothing of the moral correspondence, which I set aside, although it equally belongs to the domain of medicine. In a word, all the facts observed up to the present time amply suffice to demonstrate the possibility of the transmission of the individual peculiarities and morbid tendencies of the father to his offspring, and syphilis does not seem to escape this law of hereditary morbid tendency. For the rest the following case demonstrates, first, the infecting power of the father upon the fœtus; secondly, that of the fœtus on the mother while she was entirely free from syphilitic contagion. The following is the case.

Madam N——, aged twenty-nine years, of a somewhat lymphatic temperament, without any previous syphilitic disease, born of healthy parents, without any hereditary rheumatic tendency, was affected in 1859, three months after marriage, with acute articular rheumatism, from which she recovered at the end of five weeks. During the summer of the same year she became *enceinte*, and was confined early in 1860, with a healthy child, not exhibiting a trace of syphilis.

It was not so with the second child, as we shall see. But before proceeding with the history of the second confinement, we must refer to the antecedents of the husband before 1859.

A chronic discharge from the urethra or *military drop;* no trace of syphilis; old or recent hypertrophy of the liver, for which M. N. had been under the care of Messrs. Trousseau and Beyran. For the stricture this gentleman had consulted, at first M. Leroy, then Messrs. Segalas and Beyran. He was cured of his urethral discharge.

Early in 1860, M. N—— contracted a chancre at the base of the gland. It became indurated, and was accompanied by an indolent enlargement of a number of glands of the left groin. Being absent from home, the patient could not put himself under the charge of M. Beyran until three months later, when there only remained the scar of the chancre. There still existed in the left groin considerable enlargement of the glands.

On examining the throat there was found an erythematous redness uniformly spread over the velum palati and the throat, with mucous papules on the tonsils, with secondary glandular swellings in the neck. The patient was subjected to specific treatment by the proto-ioduret of mercury.

After two months of this treatment the syphilitic symptoms had disappeared, and the patient's general condition seemed considerably better. During the interval the patient had returned to his marital relations, in spite of the remonstrances of his physician. Everything, however, appeared to be going on without any special indication of danger, and the lady, pregnant for the second time, was in good health in all respects. At the full term of pregnancy she was confined. But this second child presented at birth about the nates and the genitals an erythematous eruption as well as papules or mucous patches about the anus, umbilicus, and on the neck and head. At this time, the mother, most carefully examined, showed nothing suspicious about the genital organs or elsewhere. Two months and a half after her confinement, syphilitic symptoms appeared, without any new infection, in the form of impetigo of the scalp, accompanied by excessive tenderness of this region, and general pains of a neuralgic character, aggravated at night. To these preliminary symptoms succeeded soon an exanthematous eruption with which the chest and belly were covered, coming on without fever or itching. At the same time the patient complained of a stiffness of the calves of the legs, which made, at times, walking very painful.

A mixed treatment, composed of the proto-ioduret of mercury, iodide of potassium and alkaline baths, continued for six months, resulted in the recovery of the patient.

M. Beyran draws the following conclusions from this case, which we submit for the judgment of our readers.

In this case what do we see? In the first place a perfectly healthy woman, whose husband up to this time was entirely free from all taint of syphilis, has a child which is perfectly healthy. The same state of things does not exist during the second pregnancy. This time the husband, being infected with constitutional syphilis, communicates this disease to the product of conception, which in turn transmits it to the mother. The transmission effected in this way is evident, when we take into consideration the time at which the syphilitic symptoms appeared, and the circumstances attending their development. In addition, the absence of all specific lesion of the sexual organs of the patient at the time of the birth of the child, and the characteristic signs presented by the husband, leave no room for doubt on this point. From all these circumstances it may be concluded that the spermatic fluid of the husband infected or transmitted the germ of syphilis to the fœtus at the time of conception, and that the fœtus communicated the disease to the mother during the period of gestation.

ON THE EMPLOYMENT OF MERCURY AND IODIDE OF POTASSIUM IN THE TREATMENT OF SYPHILIS.

By Dr. Junien-Lavillauroy. Translated from the *Gazette des Hopitaux.*

HAVING sketched in a bold style the history of the treatment of syphilis by mercury, having pointed out at what period of the disease, and against what symptoms, mercurials may be useful, M. Junien-Lavillauroy sums up in his thesis the principal modes of the administration of mercury, and insists specially on the method of Montpellier, or that of radical cure. This first part ends with a table of the principal mercurial compounds, arranged in the order of their activity.

We know that M. Bouchardat divides the principal compounds of mercury into:—1st. The *soluble preparations.* Iodhydrargyrate of the iodide of potassium; bi-chloride (corrosive sublimate); and cyanide of mercury.

2d. *Insoluble preparations.* The red oxide; the proto-chloride; proto-iodide; and metallic mercury.

This arrangement is admitted by all therapeutists, particularly by M. Trousseau.

The second part of this work is devoted to iodide of potassium. The opinions advanced by the author are summed up in the following conclusions:—

1. If, with the generality of physicians, we adopt the method of radical cure, or that of Montpellier, in the treatment of constitu-

tional syphilis, the practice which consists in giving the iodide of potassium after the disappearance of the symptoms under mercurial treatment, is always useless and may often become injurious.

II. The mixed treatment is very energetic, and ought to be employed in the case of very obstinate and inveterate syphilis; but with the condition, that, if we wish for a durable cure, the mixed treatment must be continued a long time, or that after it the ordinary mercurial treatment should be continued for a certain period.

III. We understand the prompt and immediate treatment on the part of those physicians who do not believe in the preventive action of what they term anti-syphilitics; but from the moment that they give them to anticipate new symptoms, according to the rules of the method of Montpellier (and, it must be remarked, all those who give the iodide of potassium after mercury, do it for this end), all these do the opposite to what they propose to do. They drive, in fact, the mercury from the economy, the specific which they have designedly accumulated in it, and to which they are proposing to add, perhaps injuriously, another specific, the iodide of potassium.

IV. The action of the iodide of potassium on the compounds of mercury fixed in the economy explains the opinion that iodide of potassium does not act as an anti-syphilitic in tertiary syphilis, except in those persons who have previously undergone a mercurial treatment.

V. The iodide of potassium may act not so much as iodide of potassium, as in transforming the mercury in the system into a more active compound, the iodhydrargyrate of iodide of potassium. So that it would seem there is in reality but one specific for syphilis, *mercury*.

VI. When in syphilitic patients symptoms appear a long time after mercurial treatment (and with much greater reason when it has not been employed at all), as we may suppose that there is no mercury left in the system, if we wish to treat the patient by iodide of potassium, in order to count upon its action, it is well to give at the same time a mercurial preparation; that is to say, to follow what Vidal de Cassis calls the mixed treatment.

A CASE FROM AN OLD COMMON-PLACE BOOK.

[Communicated for the Boston Medical and Surgical Journal.]

July, 1807.—Mr. A. B., 22 years, having for a long time been troubled with indigestion and the consequences therefrom, was attacked, after a short journey, with violent pain in the intestines, with an impossibility of voiding any fæces, also attended with a slight diabetes. Dr. —— attended, and ordered, in the first place (Sunday evening), to have the abdomen fomented. Soon after, a large blister was applied below the umbilical region, and at the same time were ordered 60 drops of laudanum every 15 minutes, until the patient was relieved, which was after the fourth dose. After the first dose of laudanum, 10 grs. of calomel were exhibited, alternating with 1½ spoonfuls of castor oil. The oil, after the fourth or fifth dose, occasioning nausea, a dose of senna and manna was given. Began the exhibition of calomel Sunday evening at 9 o'clock, and continued until the patient had taken four doses of the first and five of the last—about seven spoonfuls; the senna and manna were given. Sunday night there was a considerable sweat. Monday morning, some more flies were rubbed on the plaster, though it had raised three blisters.

Monday, between 1 and 2, another dose of senna and manna was administered. There being some diabetes (dysuria), gum arabic was given. The physic began to operate about 1 on Monday; a large worm was evacuated; there were about nine discharges by Tuesday morning. Wednesday, the patient complaining of pain in the abdomen, gave him 6 grs. of calomel with rhubarb, and ordered, if the pain did not subside, to apply another blister. The pain, however, did subside. Friday, senna and manna were again administered. Saturday, much better, and Sunday, rode to his home, from C. to B., about three miles.

Remarks.—The writer had been a medical student three months when the above case occurred—the first in his Common-Place Book—having entered Dr. ——'s office, April 17th, 1807. This fact in the writer's professional preparation may explain certain technical awkwardnesses in the composition, and occasional obscurities in the use of professional terms. His Master in Medicine was in large and successful practice. He had got what home could afford towards professional education, and then went abroad to complete what had been well begun. It was not then the every-day affair to go abroad that it is now. And crossing the Atlantic was, as the Salmagundi has it, thought a marvellous sharpener of the wits. Our case shows what was medical practice in 1807. Physic then was physic; and he who did not give it, would have had but very few to take it. Mr. A. B., 22 years old, was attacked with severe illness, and a successful battle was carried on against it. It began of a Sunday evening, and ended the following Saturday. On Sunday he drove three miles, and as we hear nothing more of him, it is safe to infer that he had a good recovery, or delivery from disease. It is pretty clear there was very little NATURE in this disease, or case, whatever may be the power of that mysterious agency now-a-days. It was blisters, and calomel, and castor oil, and senna and manna, and especially laudanum, which achieved the victory. Disease—to speak metaphorically, as the time warrants—was a rebel, an intruder within the territory of health, and an armed resistance against such a foe was thought a most imperative duty, and the duty was faithfully done. And was not the victory glorious? Men, medical ones, I mean with certain aids from the female army, now undertake to ridicule what they call HEROIC medicine! "A cock to Esculapius!"

We had then no fear of physic, and less of disease. But *tempora mutanter, et nos mutamer in illis.* Stomachs and bowels have changed, and so has physic. “Am that calomel?” asks the five-year-old. “If it was, I won't take it, so!” And what a change in the apothecary's business! He sells cigars, and the people smoke them! And recipes, how changed! I give a specimen of one of the olden time: R. Hyd. sub-mur., pulv. jalap., do. aloes, aa ℥ i.; Muc. acaciæ gum, q. s.; M. ft. pil. No. 480. Dose 4, p. r. n. This is not a joke. It is a true record. I live pretty nigh to one who put up many such recipes. A fashionable pill of that time was called 10 and 10—*vel* ten grains of calomel and as much jalap, with an occasional accomplice of tart. emet. 1 gr.

Now there was nothing excessive in the operation of such doses. They surely worked themselves out and off, and the taker only remembered how much good they did him. Patients then were grateful, for they were satisfied and gratified with treatment and results. A doctor spoke with authority. The calling was honored.

CASES IN MILITARY SURGERY.

[Communicated for the Boston Medical and Surgical Journal.]

Aneurism of the Axillary Artery.—By the kindness of Dr. R. H. Longwell, one of the Surgeons of the Union Hospital, Georgetown, I have been permitted to extract from his note-book the following interesting case:—

John Illingworth was wounded on the 30th of August, at the battle of Bull Run, the ball entering at the lower border of the pectoralis major just above the axillary space, and making its exit at the outer border of the scapula, two inches above the lower angle of that bone, severing in its course the median nerve, and so completely destroying the axillary artery as to render the pulse imperceptible at the wrist. The only point at which pulsation could be detected was about four inches below the wound. A slight aneurism formed at the seat of injury, which continues to the present time (Sept. 26th). The patient entered the hospital on the 3d of September, at which time the wound presented little evidence of inflammation. Five days after his entrance, the wound began to suppurate freely at the point of exit, and four or five days from that time suppurated slightly at the point of entrance. At no time was there a high degree of inflammation, the patient being restricted to a farinaceous diet. On the day after his arrival a compress was applied over the subclavian artery, and simple cold water dressing has been made use of since. On the sixth day, the pulse was very slightly perceptible at the wrist, and continues so, but apparently to no greater degree than on the fifth day after the injury was received. The arm lost its temperature, but by the application of carded wool and stimulating lotions, has been kept comfortably warm. There is some, but not a great deal, of atrophy of the injured arm. The patient's general health is at present good, and his prospects are flattering.

Gunshot Wound of the Neck, severing the Cervical Plexus of Nerves.—Dr. H. S. Hamnen, of the Presbyterian Church Hospital, Georgetown, D. C., had charge of this case, and furnishes the following **particulars**:—

Patrick Norton, Co. D, 1st Regiment Sickle's Brigade, entered the hospital on the evening of September 1st, having been wounded at the battle of Bull Run, a few days previously. The patient was somewhat exhausted at the time of his entrance, but rallied under the use of stimulants. Respiration was easy. During the night, the patient was extremely restless, continually calling for water, and wishing to have his position changed. This continued until death. The pulse was full and bounding. Upon examination, the next day, a small wound, apparently from a pistol shot, was found in the neck near the right primitive carotid, the ball making its exit near the inferior border of the scapula on the left side. There was paralysis of the upper and lower extremities, consequent upon the severing of some of the nerves involved in the wound. There was also paralysis of the sphincters of the bladder and rectum, the faeces and urine being voided involuntarily. Great irritability of the stomach was a constant symptom, it being impossible for the patient to retain food or medicine for more than fifteen minutes. Involuntary emissions of semen occurred nearly every two hours. The patient finally became so noisy and troublesome, that it was necessary to have him isolated. The treatment consisted of cold water dressings to the wound, and anodynes, the patient taking, on an average, eight drachms of solution of sulphate of morphia (one grain to the ounce) daily. He continued in pretty much this condition till September 16th, when he began to sink, and expired on the 20th, at 6, P.M. A *post-mortem* examination could not be obtained.

IS ALCOHOL FOOD?

Read at the Annual Meeting of the British Medical Association, August 8th, 1862, by Thomas Inman, M.D. (Lond.), Physician to the Liverpool Royal Infirmary.

THE author first devoted a few words to definition, stating that by "alcohol" he intended to comprise those liquors in common use which owed their effects to alcohol: and by "food," anything which supplied material by which the body was nourished. He then adverted to the fact that a saccharine material was found in the blood of all mammals when it entered the lungs, and to the strong probability that a fermentative process took place in those organs, with the extrication of carbonic acid, the actual source of which in the blood had not yet been absolutely ascertained. The close atomic composition of starch and sugar and alcohol *plus* carbonic acid was pointed out; also the fact that the starches, &c., and alcohol were often tolerated by delicate stomachs when other ingredients were not tolerated.

The author then shortly summarized the effects of ordinary food, whether animal or vegetable, when taken with water for a beverage and in proper quantity, and compared these with the results following a temperate draught of ale or porter; showing that there was no real distinction between the one and the other, except that the liquid sooner entered the circulation and sooner left it. It was no argument against the use of beef that a man who had dined on it one day wanted a dinner the day after; nor against beer, that a person who had taken one glass was ready for another in a few hours. The prejudicial effects of excessive eating were adverted to, and after mentioning a few instances where guzzling had proved fatal, others were alluded to in which a prolonged lethargy or an apoplectic condition had been induced. The use of beef tea sometimes produced convulsions in infants, but this result did not vitiate the dietetic value of meat. The physical condition of excessive eaters was then spoken of, and it was shown that some were thin, others stout; and that as regarded the moral condition of those who, from choice, religious belief, or necessity, abstained from the use of alcoholic beverages, they were to the full as bad as those who indulged in drink. Cannibals were teetotallers, and neither Nana nor Tippoo was a drunkard. On inquiring into the habits of total abstainers and those who drank ale, wine, &c., the author had ascertained that the former habitually ate much more than the latter; and one of three deductions was necessary: either the former ate too much, the latter too little, or the drink of the one was equivalent to a portion of the food of the other. To ascertain which of these alternatives was nearest the truth, Dr. Inman had experimented in his own person, and had made numerous observations through the assistance of friends. The conclusion he came to was that which had been previously insisted on by Mr. Lewes and others—namely, that alcohol replaced a certain amount of food; and "as things which are equal to the same are equal to one another," he inferred that if a glass of ale was equal to a slice of mutton in its satisfying effect, and that mutton was food, it must follow that ale is food. To say that persons could not live on ale, was of no value as an argument; for no one could live on biscuit alone, though bread was called the staff of life. To ascertain how far it was possible for any one to live on alcohol alone, he had for many years been seeking information respecting drunkards, and he mentioned two—one on the authority of the individual herself (a surgeon's widow), and the other on the authority of the medical attendant, where patients had subsisted for a prolonged period on brandy-and-water alone. He mentioned others on the authority of other medical friends, and two which he had himself been conversant with. He combated the idea of the probability of imposture, inasmuch as in all these cases solid food was loathed excessively, and was generally rejected by the stomach. He then mentioned some cases of children that he had attended, in whom the appetite had failed entirely, where food which was administered by force had been vomited, yet in these alcohol in one form or other gave the support which other food did not, and gradually restored the appetite to its normal state. He noticed, too, that infants at the breast, when ill, would digest brandy-and-water when they would reject all else. The advantageous influence of this fluid was apparent, even if it were administered in enemata.

A definite course of induction, irrespective of chemical theory, having ended in the conclusion that alcoholic drinks were strictly alimentary, he shortly referred to the statements which were relied upon to demonstrate the contrary. If alcohol, he said, passed out of the system unchanged, so did water; yet water was absolutely necessary to life. But there was no proof that all the alcohol imbibed in a long symposium ever left the body. He inferred that if it did pass out of the lungs in vapor as largely as was assumed, a party of spirit drinkers would make the atmosphere of a closed room explosive; and he recalled the statement of Pereira, that some northern race had found that two or three people in succession might keep up intoxication with "lolium temulentum" by drinking the urine of the first eater; yet none had discovered that the urinal of a drunkard contained anything equal to gin. But certain foods, as oatmeal, bran, potatoes, oats, &c., were not wholly retained in the system, yet they were alimentary.

Dr. Inman then combated the idea that alcohol was a mere stimulant, by contrasting it with turpentine, cantharides, ginger, cayenne, iodide of potassium, and other drugs, which were stimulants to every part of the body to which they were applied. He argued that alcohol could not simply be a conservator of tissue; for a glass of ale after a long walk would induce plentiful perspiration, and a glass of whiskey or gin-and-water acted with most people as a powerful diuretic. Nor could we conclude that it assisted in disintegrating the tissues; for if it did, the use of ale, wine or spirit must then be antagonistic or antidotal to food, and the winebibber must necessarily require more food than the teetotaller, whose tissues were not disintegrated by artificial means.

He then summed up his conclusions thus:—

1. Nature has provided in the salivary glands, the liver and the lungs of every mammal an apparatus for converting all food, especially farinaceous, into alcohol; and we have no evidence that such conversion does not take place.

2. One form of alcohol or another is available for the support of life, and for restoration to health when no ordinary food can be or is digested.

3. Alcohol, after being taken, is incorporated with the blood,

passes into the various tissues, and ultimately disappears, a small portion only passing away in the breath. We can say no more of bread, potatoes, or oatmeal porridge, a small portion of each of which passes out of the body with the fæces.

4. Alcohol, in the form of ale, porter, wine, &c., relieves hunger and quenches thirst simultaneously, and with a completeness that is not equalled by water, infusion of gentian, cayenne pepper, or by turpentine—i. e., it does not act as water simply, or as a stimulant alone.

5. Wine, beer, &c., satisfy the appetite when taken alone, and act for the time as any solid food would do.

6. When alcohol is mingled with other food, a less amount of the latter suffices for the wants of the system than if water had been used as the drink.

7. The various forms in which alcohol is taken have as marked and specific effects as have animal and vegetable articles of diet.

8. Individuals have subsisted wholly upon one or the other of the various forms of alcohol in common use for periods of great length; and as it is illogical to conclude that they must have lived on air, without food, or on flies like chameleons, the conclusion is irresistible.

What that conclusion is, it might be left for every thinking man to decide.—*London Lancet.*

Army Medical Intelligence.

The following statement of the sanitary condition of the 16th Regiment Massachusetts Volunteers, may not be uninteresting to our readers.

Camp near Fort North, Va.
September 30, 1862.

In response to Circular No. 9, Art. 3, I have the honor to forward the following summary of the medical history of the *Sixteenth Massachusetts Regiment* from the time of its formation. During the month of July, 1861, the 16th Massachusetts Volunteers went into camp at Camp Cameron, Mass.; six companies reporting on July 2d, and the remainder following at intervals till the regiment was complete in the number of its officers and enlisted men. The regiment was mustered into the service of the United States the 5th of August ensuing. It remained in this camp till August 17th, living in barracks and enjoying good health. August 19th went into camp at Camp McClellan, Baltimore, Md., where it remained until August 29, 1861, when it embarked for Fortress Monroe. Sept. 1st, went into camp at Camp Hamilton, Va., where it was stationed until May 8, 1862.

This camp was bounded on the south by Hampton Roads, and lay about the former residence of Hon. Joseph Segar. It was free from *malaria*, had an abundance of good water, and was well policed. The picket duties, however, carried the men into miasmatic tracts of land, lying within a circuit of two miles of the camp. An abundance of good food and clothing was at all times furnished the regiment during this period. The companies accumulated funds, the men had comfortable winter quarters, and had erected a large gymnasium for exercise, and a bakery for regimental cooking. The Segar house was used for a hospital. The medical supplies were ample. During this time there was great immunity from severe disease.

May 8, 1862, the men struck their tents, and the major part of the regiment went into camp at Gosport Navy Yard, May 9th—a portion of the regiment being kept in Norfolk, one company at the Naval Hospital, and one at Craney Island. Went into camp at Suffolk, Va., May 17, 1862, remaining there until June 8–9th, when the regiment left under orders to report at the "White House," Pamunkey River. The location of the camp during these three weeks was a healthful one, and the regiment was in a sound condition. Next encamped at "Fair Oaks," June 12th. The site of encampment was the battlefield of a previous date. The country around was scattered with unburied human bodies and horses, in the several stages of decomposition, the water was impure, and the air pestilential. There was evident a scarcity of vegetable food while at Fair Oaks; and the labors of the regiment were very severe. Picket duties carried it every 3d day into the midst of an almost insupportable stench arising from decaying bodies and stagnant pools. Daily and nightly alarms called the men, when off duty, to arms. In addition to which, they were engaged in the armed reconnoissance of June 18th, which resulted in heavy loss to the regiment, and in the battles of June 25th and June 28th.

June 29th, the regiment was *en route*, and was engaged in the successive battles taking place during the retreat. Its loss at the battle of Glendale was heavy—at the battle of Malvern Hill, it was less severe. July 6th, went into permanent camp near Harrison's Landing. This camp was situated on the southern exposure of a side hill. There was an abundance of running water about it, and good bathing conveniences. The heat was intense during the stay of the regiment in this neighborhood; still, under the thorough camp policing pursued, the location could not be considered an unhealthy one. The great amount of sickness prevailing here was consequent to the residence at Fair Oaks, and the hardships encountered in the march thence and during the protracted battles which ensued. Exhausted and half starved, there were few in good health on the arrival at this post. About six weeks of rest, extra supplies of vegetables, and an abundance of clothing, with the very liberal supplies of lemons and other comforts from the Purveying Department, restored most of the men to a good state of health, before the camp was broken up, on the retiring of the Army of the Potomac from the Peninsula.

August 15th, the regiment was in line of march, and, August 23d, having taken boat at Yorktown, arrived at Alexandria. Having remained two days in camp near this last mentioned city, it was removed to Warrenton Junction, whence, after a stop of twenty-four hours, the regiment was on the return August 27th. It was engaged in the battle of "Kettle Run," on the last mentioned day, in the battles of Manassas August 29th and August 30th, and of Chantilly September 1st. In the hurried departure from Warrenton Junction, all property, public and private, including that pertaining to the hospital (one wagon alone miscellaneously collected being excepted), was either destroyed on the spot, or afterwards burned in a railroad car, to prevent its falling into the hands of the enemy. On this return march, the officers were without horses, and the men had left camp with a scarcity of rations; hence, in addition to the suffering resulting from the protracted fighting, those of the march alone were extreme. *There was not an ambulance in the whole division*, and it was necessary to leave many sick and broken down men by the wayside, to appeal to the charities of other divisions more fortunate, or to slowly drag themselves along. The inconveniences resulting from this deficiency, during the battles of Manassas, were distressing, for any ambulance accommodation was entirely hap-hazard.

September 3d, went into camp near Fort Lyon, and removed to its present location near Fort North on the sixth inst. This encampment has an elevated situation, is thoroughly drained, and the wells in the vicinity contain excellent water. The men are well fed, and are gradually being supplied with the necessary clothing. Sibley tents have just been received for the whole regiment. The number present for duty, this September 30th, is 17 officers and 533 enlisted men. There has been a large amount of diarrhœa and jaundice prevailing in the regiment since its return to Alexandria, very few having escaped; but the sanitary condition is steadily improving.

The history of the regiment comprises no epidemics other than a slight one of rubeola, and one of parotitis, while it was living in Camp Hamilton. But little treatment was employed for these diseases.

Subjoined is the statement, in compliance with the requirements of Art. 4, Circular No. 9.

Original strength of the regiment,	1033
Number of recruits who have since joined,	69
Number of deaths from wounds,	44
" " " " disease,	21
discharged from service for disability,	55

The strength of the regiment June 30, 1862, was as follows:—

For duty,	730
On sick report,	88
In General Hospital,	98
Other absentees (none on furlough),	23
Total,	939

On June 30th, the regiment was engaged in battle. The earliest entry on the regimental books was July 10th, which latter date has been made use of for the above table.

Respectfully submitted, C. C. Jewett,
Surgeon of 16th Mass. Vols.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, OCTOBER 16, 1862.

Ambulance System for the United States Army.—We have devoted considerable space in recent numbers of the Journal to this important subject, and we do not propose to let it drop until it is evident there is no further need of agitating it. At the present time, we know of nothing connected with the management of the army which more urgently demands thorough, efficient and radical reform. The utter insufficiency and cruelty of the present apology for a system has been fully exposed in our pages by Dr. Bowditch, and the members of the medical profession here are already at work to bring their influence to bear upon the Government, to effect the needed changes. This work must not be remitted. It is too common an experience for those who have become impressed with the existence of some mighty evil, to rest content with relieving their minds upon the subject through the press, leaving to others to do what properly falls within the line of their own duty. As for the gentleman who first enlightened us here upon this matter, it needs no assurance from us to those who know him, that he will not leave one stone unturned, so far as his individual efforts are concerned. But what can one man do, where so much is to be effected? The *vis inertiæ* to be overcome in dealing with army arrangements on so gigantic a scale as our own, where any important reform is contemplated, is an obstacle requiring Herculean strength to remove it. Dr. Bowditch should receive the sustained, continuous assistance of the whole medical profession, until a complete reformation is effected. No class of men have a stronger hold on the community for bringing about measures of practical benevolence than they have; and through their influence a public opinion may, nay must be created, which will be irresistible. Let the military authorities be besieged and overwhelmed with petitions, if need be; let them have no rest until they yield to the imperative demands of an outraged people.

As we write, we see the announcement in the public press that a movement is on foot, under the direction of a Mr. Pierce, for organizing a body of 12,000 men, as an ambulance corps. We know not under whose authority this step is taken, and we shall be truly rejoiced to learn that it has the sanction of government; otherwise it will be likely to meet the fate of the various relief corps, heretofore raised by individual effort, only to be informed that their services were not wanted. It has been said that the opposition hitherto made to a distinct ambulance organization rests with General Halleck and Mr. Stanton. It is difficult to believe that these gentlemen blindly oppose what every other reasonable man says is simply humane and just. We cannot but think that they may have some plan of their own which they have not as yet made public. General Halleck, as every one knows, when commanding in the West, was particularly courteous and efficient in his assistance to the Sanitary Commission in their humane efforts to lessen the sufferings of the sick and wounded, and we cannot believe the Secretary of War has a harder heart than an old soldier. Let public sentiment, then, be kept alive and active on this subject, until it bears down all opposition, and we can feel assured that everything is done that can be done to assuage the inevitable miseries which this wretched rebellion has brought upon us.

Nitrate of Potassa as a Remedy for Intermittent Fever.—The following communication has peculiar interest at the present time. Its statements are so extraordinary as to be almost incredible. Their truth or error admits of such ready proof that we hope soon to hear of conclusive experiments on some of the multitude of cases of intermittent coming under the notice of our army surgeons. It is worthy of remark that the combinations of potass have a remarkable power of penetrating the tissues and of producing the most unmistakable alterative effect: no medicines in the whole pharmacopœia have more decidedly the character of specifics than the iodide, the chloride and the arsenite of this mineral. The communication of our correspondent recals to our mind the fact, that several years since we used the iodide of potass successfully in the treatment of a case of fever and ague that had resisted the power of quinine. We sincerely hope that the confidence of our correspondent in the efficacy of the nitrate may be most fully confirmed by the experience of others. Should this be the case, intermittent fever ought to be the last disease from which our soldiers should suffer, for each man has the remedy in his own cartridge box. Query: has the mixture of gun-powder and whiskey in the canteens of the Confederates anything to do with such a supposed medicinal effect?

Mr. Editor,—℞. Potassæ nitrat., gr. x.; sp. vini gallici vel. aquæ f℥ ss. M. Take immediately.

The above prescription I have used with great success in the cure of intermittent fever, even where quinine has failed. In my opinion no preparation is equal to it; for it possesses antiperiodic properties completely, and may be administered when the stomach would not tolerate quinine. I deem it a specific in ague; for I have never failed to arrest the paroxysm, if uncomplicated. You will also find the patients are less liable to relapse than in those cases cured by quinine. In the cold stage, if administered in a full dose, and the patient be placed in bed and covered with blankets, he will in a few minutes experience considerable heat, which will be followed by copious perspiration, and every unpleasant feeling will vanish. When it is more agreeable, the powder may be placed on the tongue and permitted slowly to dissolve.

I shall not attempt to explain the action of this medicine on the system in the cure of ague, but will leave that to older heads than mine to determine: still, we do know that after it is taken into the stomach and becomes absorbed, it has the chemical effect of changing the dark-colored venous blood, to arterial, or at least it changes its color. It also acts on the kidneys as a stimulant, producing diuresis, as well as diaphoresis: and in this manner may rid the system of the poison that causes the ague, provided that poison is produced "by the retention of materials destined for excretion." This medicine, in its operation, more closely resembles nature's mode of curing this same disease, than any other: as she cures by copious diaphoresis as well as diuresis, or in other words by elimination.

I contend that this remedy possesses advantages over any other now in use; especially for its antiperiodic properties, which it possesses *perfectly*. The patients are less liable to relapse than in those cases cured by quinine, and its administration is more agreeable to the patient. And last, but not least, it is much less expensive.

Hillsboro', Ill., Sept. 13th, 1862. AMOS SAWYER.

WE print the following communication for the benefit of those, if there be such, to whom paste-boards splints are a novelty. They have been in common use here for some years; but of late, splints made of gutta percha have superseded them to a great extent. This substance is so much more plastic than paste-board, as to be much more easily adapted to those cases suitable for its use. In the choice of apparatus, however, we are inclined to think that generally it is very much a matter of fancy or convenience with the surgeon, the same result being attained, in different hands, by quite various appliances.

Paste-board Splints. *Mr. Editor,*—I cannot tell whether the use of these splints originated with myself or not; but this is a matter of no consequence. Suffice it to say that I have been in the habit of using them almost ever since the beginning of my practice, now upwards of thirty years. My sole object in calling attention to them is to make them more generally known, especially to our younger surgeons, as the simplest, often the most accessible, and the lightest and the easiest surgical splint I have seen employed. The old wooden splint I have entirely discarded.

Called, for instance, to a case of broken arm, finger, or leg, I cut a bit of paste-board into strips of suitable lengths and width, and soak these in water till thoroughly wet. I then fit them to the adjusted limb, and immediately apply the bandage. This is left on from twelve to thirty-six or more hours, according to circumstances, when I cautiously remove it, and give the limb an airing. The splints are now found to be dry, and completely moulded to the shape of the limb, needing no pads, cotton or flax to fill up vacancies. The arched form which the splints have now acquired, gives them a surprising degree of firmness; and they can be easily adapted from this time onward, to the broken limb, which rests comfortably in them, as in moulds of clay, exactly adapted to the surface of the limb. These splints are so light as not to be at all cumbersome to the patient, and require little skill in their adaptation to the limb. I use different thicknesses of paste-board, according to the size of the part treated; and have been able to see no reason why the paste-board splint should not meet with universal approbation. Jno. T. Plummer.

Inspection of Hospitals. *Mr. Editor,*—Everything pertaining to hospitals is now exciting much attention. The inspection of hospitals of the army, undertaken by the Sanitary Commission, is an admirable conception, and I doubt not will be productive of satisfactory results. Having given much attention to the subject in general, and thinking, sometime since, that it was desirable we should have more particular information about certain hospitals, so as to make a more correct estimate of the causes of the greater mortality in one than in another, and to arrive at the most truly economic way of building and managing hospitals, I drew up a formula, or list of memoranda, comprising those things which I thought worthy and desirable of notice in describing any particular one. I here offer this to you for publication. As you see, it is made to embrace every department—topographical, constructional, &c., down to the economic and pecuniary. I do not suppose it is perfect, and should therefore like to have any suggestions of points that I have omitted.

TOPOGRAPHY.

Location.—Relative to water surfaces; relative to surrounding country.

Character of surrounding country; of soil.

Proximity to Water.—Sea, lake, or river; fresh or salt; tidal?—if so, surface left bare at ebb—gravel or mud.

Amount of foliage or herbage in the neighborhood.
Any factories; tanneries; slaughter-houses; gas, chemical, or kerosene works?
What grounds are around the building for the use of the patients?

METEOROLOGICAL POINTS.

Temperature—Minimum; maximum; mean.
Hygrometry—Dry or moist.
Prevailing Winds—Cold or warm; dry or moist.
Is the building sheltered from them? By what? high land, foliage or houses?

CONSTRUCTION OF BUILDING.

General Shape and Arrangement—Square; oblong; hollow square; pavilion (how arranged).
Size; material; thickness of walls (solid or hollow); number of stories; cellarage; out-houses.
General Internal Plan—How divided; size of wards—height.
Do the wards run all across the building, so as to have sunlight on each side and through ventilation?
Interior Finish—Wood, bare or painted.
Plaster—smooth or rough finish, bare or painted; on the wall itself or on furring.
Floors—hard or soft wood, bare, painted, or covered.
How is the building heated?—Lighted (artificial light)?—Ventilated?—Drained?
Privies and Water Closets—On what plan? Where placed? Bedside conveniences for patients.
Supply of Water—Kind (limestone, river, well, &c.); hard; soft.
Number of Beds; material and kind of cot; material of mattrass.
Anything else of notice about beds or their arrangement; number of cubic feet to each.
Number of admissions; of beds on average full; of deaths; of discharges—relieved, cured.
Average stay of patient.
Any endemics; any epidemics.
Food—Kind; quantity (sufficient and obtained in good condition); how cooked.

FOUNDATION AND MEANS OF SUPPORT OF THE HOSPITAL.

Endowed—By government; by private individuals; supported by subscription; by receipts from patients.

GOVERNMENT.

Governor or Trustees—How appointed.
Professional Force—Physicians; Surgeons; paid or unpaid. Steward; matron.
Nurses—male; female.
Laundresses; cooks and other helps.

EXPENDITURES.

Original Cost of Hospital—Ground; building; fittings.
Annual Cost—Physician and Surgeon. Steward and matron. Nurses and other helps.
Food; medicine; fuel; light; other expenses.
Cost of each patient per week—For food; for medicine.
Whole average cost of patient.

It is also desirable, if possible, that a ground plat of the house, grounds and surroundings, within a radius of an eighth of a mile, should be given. As a general thing, this can be done with little trouble, and sufficiently accurate for all useful purposes, after a little practice. The eye can measure distances nearly enough, or they can be paced off. It must not be forgotton to designate on this plat, the cardinal points—an important item, often omitted.

4 *Staniford St., Oct.* 10*th*, 1862. WM. ED. COALE, M.D.

Suum Cuique Tributo.—*The Cincinnati Medical and Surgical News.*—We are always gratified to see articles from the Journal copied into other medical publications, thus endorsing the value of such articles. Two late numbers of the *Cincinnati Medical and Surgical News* each contain an article from our pages, copied *in extenso*. We regret to observe, however, that in neither instance is any credit given to us, and the position of the articles would lead to the inference that they are original contributions to that respectable Monthly. Should the News see fit to publish the concluding portion of Dr. Welsh's interesting translation of Saurel's valuable article on Operations after an Engagement, which appeared in the Journal several weeks since, and of which it printed the first part without giving us credit, we hope to see a due recognition of the source from which it is obtained. *Suum cuique* is a principle which cannot be too jealously observed in all the relations of the medical profession.

The American Dental Convention.—The eight annual meeting of this Convention was held at Trenton Falls, N. Y., commencing on the 5th of August, and continuing four days. It was largely attended, and its proceedings were animated and of an interesting character. The retiring President, Dr. John Allen, read an address on *the best means of advancing dental science*. Dr. Amos Westcott was chosen President for the coming year, and made some appropriate remarks. A lengthy discussion took place on the use and relative value of anaesthetics. Dr. Rogers stated that he had given chloroform in more than 2000 cases, and had been extremely successful, two cases only of slight disturbance of the health following its use. Dr. Colburn preferred sulphuric ether, which he had given on an average once a day for the past sixteen years; he had formerly used chloroform, but relinquished it for fear of the consequences. Dr. Kingsley stated that in the New York Hospital, ether only was given, and that among conscientious physicians and surgeons chloroform was not used. Dr. Dwinelle gave both ether and chloroform, but usually the latter. Had administered them in about 1100 cases, without injurious effects. He had found that the last thought of the patient previous to anaesthesia was the ruling thought through the condition. He never gave anaesthetics unless absolutely necessary. Dr. Hayes had been in the habit of applying chloroform locally in the extraction of teeth. He first lanced the gums, and then applied it on a wad of cotton. When the pain of the application ceased, he extracted the tooth, and was satisfied that the pain was thus greatly lessened. Dr. Ellis did not like to administer either of the agents. Had used chloroform, until he met with unpleasant results, and then he substituted ether. Thought dentists should discourage the use of both. Dr. Foster was in the habit of using a mixture of both, very cautiously. Dr. Roberts preferred chloroform. Dr. Perkins opposed the use of chloroform as unsafe. Latterly is in the habit of throwing the responsibility on the patient or family physician. Dr. Bogue conceived there was no danger from chloroform, but the time and trouble required prevented his using it. Dr. Perkins, of Milwaukie, considered chloroform the great benefactor of the nineteenth century. Dr. Franklin thought that ether could be used without the possibility of endangering life, and therefore preferred it to chloroform. Dr. Palmer was opposed to the use of any anaesthetic. Dr. Tefft advocated the use of chloroform as a local agent. Dr. Atkinson would give ether in difficult cases, and in case of trouble use chloroform in connection with it. Dr. Kingsley gave a case where ether was used with a glass inhaler; dilatation of the pupil, stertorous breathing and intense action of the heart followed. Two physicians were called, and all the known remedies for congestion of the brain used. The patient never entirely recovered. The patient had eaten nothing for twenty-four hours, and hardly anything for a week. Attributed the result to this circumstance. Since then, Dr. K. had given chloroform instead of ether when anæsthesia was required. Dr. Searle alluded to the extensive use of chloroform in the army, without ill effects; and under proper circumstances he would give it without the slightest hesitation. Sometimes gave it from a phial through the nostrils. The President preferred chloroform to ether, but thought it better for the dentist to get along without anæsthetics. Dr. Burras applied chloroform locally, but not by inhalation. Dr. Hurd would never under any circumstances use chloroform in his office by inhalation, but sometimes by local application. Dr. Goldey mentioned a death from the use of chloroform. Had used it to some extent, but observing considerable nervousness to follow its use, had abandoned it.

The *treatment* of *diseased pulp* also formed a subject of discussion by the Convention; as well as the general one of mechanical dentistry, including the use of rubber as a base for artificial teeth.

On the evening of the last day of the session, an enthusiastic meeting was held for the purpose of expressing the sense of the dental profession, through its representatives, "on the question of the rebellion now existing in this country, and to assure the government and the country of the allegiance of this profession to the Union." Thirteen States were represented at the meeting. Patriotic speeches were made by several of the members, by Judge Kirtland, of New York, and by Rev. Mr. Harvey, Chaplain of the 62d N. Y. Regiment, and spirited resolutions were adopted.

OPIUM POISONING TREATED BY BELLADONNA.—Dr. W. F. Norris, of Philadelphia, in the *American Journal of the Medical Sciences*, reports two cases of opium poisoning treated by large doses of belladonna. In the first case, as near as could be estimated, seventy-five grains of sulphate of morphia were swallowed. In the course of five or six hours, fifty grains of the extract of belladonna were given, and other remedies were also employed. On the second day the patient had recovered. The other case terminated fatally—the contents of an ounce phial of laudanum having been taken, after a previous attempt at suicide by means of stabbing. A smaller quantity of belladonna than in the first case was administered, it being impossible to make the patient swallow the five-grain dose last attempted. Dr. Norris also gives, in a tabular form, a list of nine cases of poisoning by opium treated by belladonna, selected from the journals, all but one of which were successful; a list of fourteen cases of belladonna poisoning treated by opium, thirteen of which were successful; and four of atropia poisoning treated by opium, in each of which the patient recovered From his concluding observations, we copy the following:—

"The foregoing cases seem conclusively to show that in opium poisoning, belladonna in doses which in a state of health would certainly poison, may be administered with impunity and be followed by a rapid subsidence of the symptoms produced by the exhibition of the former drug, and *vice versa* that opium rapidly and safely counteracts the poisonous influence of belladonna. The treatment above indicated has, indeed, in some cases failed, and this may prove that they are not mutually specifics: but even in these fatal cases (which are few) we may sometimes see a partial amelioration of the symptoms, and it is well worthy of inquiry how much in these instances the relative quantities of the two drugs administered, the stage of poisoning in which the patient was first seen, the age and constitution, may have contributed to the result."

A case is related in the *Buffalo Medical and Surgical Journal*, in which a piece of glass, one inch long by about half an inch wide at the base and terminating in a sharp point, was removed from the foot of a lady after having been there for fifteen years. The glass was stepped upon, several pieces entering about the head of the metatarsal bone of the great toe, and all but this one were removed at the time. It had passed across the sole, and was extracted about an inch back of the head of the metatarsal bone of the little toe—having caused but little inconvenience to the patient.

MEDICAL DEPARTMENT OF THE WEST.—The following officers have been announced as Medical Directors of the Armies and Departments within the jurisdiction of the Assistant Surgeon-General, Col. R. C. Wood, U.S.A., Chief of the Medical Department of the West: Surgeon W. J. Sloan, U.S.A., Department of the North-West: Surgeon Madison Mills, U.S.A., Department of Missouri: Surgeon B. J. D. Irwin, U.S.A., Army of the South-West; Surg. L. H. Holden, U.S.A., Army of the Ohio: Surg. Robert Murray, U.S.A., Army of the Ohio; Surg. H. R. Wirtz, U.S.A., Army of the Tennessee.—*Am. Med. Times.*

ANÆSTHESIA FROM A MIXTURE OF CARBONIC ACID AND ATMOSPHERIC AIR.—Dr. Ozanam, in an important article, speaks of the anæsthetic properties of carbonic acid mixed with air. It is well known that carbonic acid produces asphyxia when inhaled in a state of purity; Dr. Ozanam, by mixing three parts of it with one part of atmospheric air, renders it innocuous. He describes his manner of applying it in the following case. Having to open a large tumor requiring incision to the depth of several inches, he complied with the request of his patient, a young man, who asked to be rendered insensible. The mixture above stated was accordingly introduced into an India-rubber bag capable of containing about 5 1-4 gallons: a long flexible tube, communicating with the bag by a stop-cock, and terminating in an opening applicable to the mouth and nostrils, was then adapted to the patient's face, but so as to allow of his inhaling atmospheric air along with the mixture. The stop-cock was then opened, the bag compressed, and the inhalation commenced. Anæsthesia was produced at the end of about two minutes, and during this time two remarkable phenomena were observed, viz., an acceleration of the action of breathing, and an abundant perspiration on the face. The surgical operation was performed without the slightest indication of pain on the part of the patient; the insensibility was therefore complete. Dr. Ozanam caused the inhalation to cease, and it was only then he applied the bistoury for the last time. This cut was felt by the patient, but the pain was extremely moderate, and the return of sensibility took place without any difficulty.—*Paris Correspondence in British Am. Jour.*

THE HYPOPHOSPHITES OF LIME AND SODA.—About two years ago, Dr. Churchill, of Paris, advocated the use of the hypophosphites of lime and soda in cases of incipient consumption, or at least of a tendency to that disease. His theory rests on the following principle:—that one of the essential conditions of phthisis consists in the want or undue waste of oxydizable phosphorus in the animal economy; and that, consequently, the disease may be prevented by administering a due amount of that element. Since then Dr. Churchill has been actively engaged in collecting facts in support of this certainly very plausible theory, and the results of his observations now form the subject of an interesting series of papers published in the *Medical Circular*, under the title, "The proximate cause of consumption and its specific treatment by the hypophosphites." Of the twenty-four cases hitherto described, there is not one but relates to consumption in the third stage successfully treated by the hypophosphites, a fact which goes far to establish the efficacy of the new remedies, and would perhaps acquire greater value, were some of the negative cases also described. A statistical comparison of the successful with the negative cases would, I think, be extremely valuable in determining to what extent the hypophosphites may be relied on in a disease in which so many remedies have hitherto failed.—*Ibid.*

WEST PHILADELPHIA GENERAL HOSPITAL.—A new Department has recently been organized in this model Military Hospital, for the treatment of diseases of the eye, and placed under the care of Dr. Ezra Dyer as its surgeon. This hospital appears to be a favorite institution of Surgeon General Hammond, who draughted the plans, had a supervision of its construction, and personally selected its corps of surgeons.

Government, it is understood, is to rent the hospital grounds at New Haven, Ct., and erect buildings to accommodate one thousand patients. The hospital will be organized on a strictly military basis. Dr. P. A. Jewett has been appointed a surgeon in the United States Army, and the hospital will be under his charge, with a sufficient number of assistant surgeons. Two hundred and fifty wounded soldiers are expected to arrive in New Haven in a few days.—*Courant.*

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, OCTOBER 11th, 1862.

DEATHS.

	Males.	*Females*	*Total.*
Deaths during the week,	48	38	86
Average Mortality of the corresponding weeks of the ten years, 1851–1861,	41.5	39.2	80.7
Average corrected to increased population,	..	..	89.
Deaths of persons above 90,	..	0	0

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
9	10	1	2	1	0	4	5	2

ERRATA.—On page 214, in a part of this week's issue, the words "mutanter" and "mutamer" should have been printed *mutantur* and *mutamur.*.

DIED,—In San Francisco, Cal., Dr. E. S. Cooper, Prof. of Anatomy and Surgery in the Medical Department of the University of the Pacific, and Editor of the San Francisco "Medical Press."

COMMUNICATIONS RECEIVED.—Case of Gun-shot Wound of the Head.—A common Cause of Baldness.

PAMPHLETS RECEIVED.—The Sanitary Condition of the Army of the United States. By Edward Jarvis, M.D. (From the Atlantic Monthly for October.)—Eleventh Annual Report of the Boston Provident Association.—Employment for Patients in the British Lunatic Asylums. By Edward Jarvis, M.D., Dorchester, Mass.

DEATHS IN BOSTON for the week ending Saturday noon, October 11th, 86. Males, 48—Females, 38. Accident, 3—apoplexy, 4—congestion of the brain, 2—disease of the brain, 4—bronchitis, 1—burns, 1—cancer, 1—cholera infantum, 10—consumption, 9—convulsions, 2—croup, 1—debility, 3—diarrhœa, 4—diphtheria, 2—dropsy of the brain, 5—drowned, 1—dysentery, 4—epilepsy, 1—scarlet fever, 2—typhoid fever, 5—gangrene (of the leg), 1—disease of the heart, 3—infantile disease, 1—insanity, 1—intemperance, 2—congestion of the lungs, 3—inflammation of the lungs, 1—marasmus, 2—old age, 1—paralysis, 1—scrofula, 1—unknown, 4.

Under 5 years of age, 39—between 5 and 20 years, 7—between 20 and 40 years, 9—between 40 and 60 years, 16—above 60 years, 15. Born in the United States, 65—Ireland, 16—other places, 5.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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THE PULSATING EMPYEMA OF NECESSITY.

[Communicated for the Boston Medical and Surgical Journal.]

Mr. Editor.—At a meeting of the Boston Society for Medical Improvement, while the subject of the treatment of hydrothorax and empyema was being discussed, a smile broke over the faces of some members at the question being asked—"Had any person then present ever met with a case of pulsating empyema of necessity?" Truly the term seems somewhat ridiculous and barbarous, yet it is sanctioned by usage and means something important. The subject is now exciting some attention in England, and clinical lectures have been delivered regarding it. It would perhaps be well to learn its precise meaning, and how to distinguish it from other affections for which it may be mistaken.

Robert L. MacDonnell, Licentiate of the Royal College of Surgeons, Ireland, and Demonstrator of Anatomy in the Medical School in Park Street, wrote for the March No. of the *Dublin Journal of Medical Science* for 1844, an article entitled "Contributions to the Diagnosis of Empyema, with Cases." The three first cases are termed by Mr. MacDonnell "Cases of the Pulsating Empyema of Necessity." The author says that although aware of the inconvenience of new names, he does not think that any other would accurately convey an idea of the cases than that of the pulsating empyema of necessity, which expresses the peculiarity of them, and with the exception of the word *pulsating*, is merely the revival of a term which until very lately was employed to express the bursting of an empyema outwardly. I have not had an opportunity to search among old works for the use of the term, but Malgaigne, in the *Médecine Opératoire*, expresses himself thus:—"Une collection de pus, de sang, ou de sérosité, amassé dans la poitrine, peut se trouver circonscrite par des adhérences, et alors on ne doit l'ouvrir que quand fait saillie a l'extérieur au lieu dit *de nécessité*. Mais si elle occupe toute la cavité du thorax, on fait l'ouverture au lieu d'*élection*." Mr. MacDonnell, in the paper mentioned, occupies himself principally with

the diagnosis between the pulsating empyema, thoracic aneurism, and malignant or encephaloid disease of the lung. The points of resemblance between these diseases, especially the first and last, are very interesting and instructive. The three cases of pulsating tumors, abridged as much as possible, are as follows:—

Case I.—A woman, æt. 28, admitted into the Meath Hospital, Sept. 6th, had been sick with acute pleurisy two months. Emaciated, with pain in left side, below mamma. Cough, with bloody streaks in expectoration, inability to lie on either side. Physical signs, dulness of left side from a few inches below clavicle downwards before and behind. Total absence of respiration all over dull portion. Upper part of left side clear on percussion, with bronchial râles. Right side, clear on percussion, puerile breathing, no dilatation of side, heart not displaced. 26th.—A small tumor had become perceptible every time she coughed, in the situation of the pain. From Oct. 1st to 15th the tumor had increased to the size of an orange, red, shining, fluctuating, with a strong diastolic pulsation. It did not convey the idea of being tilted forward by a pulsating body, as in tumors lying on arteries, but was of an expanding character, and in every part equally strong. Though frequently auscultated, the least trace of a *bruit de soufflet* was never discovered. On the 22d it burst, giving exit to three quarts of pus, and on the 15th of December she died. At the autopsy, the left side of the chest being opened, the lung was found bound by adhesions to the ribs for about two thirds of the pleural cavity, and the remaining third, i. e., between the compressed and shrivelled lung and diaphragm, was an empty cavity. The fourth and sixth ribs were found carious.

Case II.—A. B., Esq., came to Dublin in May, 1842. Had had pleurisy three years previously. In the middle of June, on examining chest, two large tumors were observed, one in the spot usually occupied by the apex of the heart, the other posteriorly between the tenth and eleventh ribs, two inches from the spine. Both tumors alike in the following particulars. They were large, about the size of a Seville orange, soft and fluctuating, not discolored, but having a few large veins coursing about their bases. Both possessed diastolic pulsation, quite visible, and as strong as that of an aneurism of equal size, but without *bruit de soufflet* or aneurismal thrill. It was easy to see that a communication existed between them, for by placing the hand on one, fluctuation could be felt when the other was tapped. Integument not inflamed or œdematous, and not painful on handling. There was no pulsation till the tumors were as large as turkey eggs. Heart dislocated to the right under mamma. Side not increased in size. Dull on percussion, except two inches below clavicle in front and to middle of scapular region behind. Front tumor punctured by Mr. Cusack and Dr. Graves, and a teacupful of matter evacuated. Mr. C. afterwards saw him, and punctured the posterior tumor. The pulsation, although greatly diminished, did not altogether disappear, but was very perceptible, even in the collapsed sac of the abscess. The tumor in front, which had been punctured first, was now as large as before, and presented a pulsation quite as strong. The patient's health fluctuated for some time from better to worse, until he nearly recovered, when he died from the effects of four months confinement in the Marshalsea, for debt.

Case III.—Jones, Esq. Pneumo-thorax. Two tumors, the size of hens' eggs. One a few inches below the nipple, the other between the eleventh and twelfth ribs, two inches from the spine. Tender to the touch. A few turgid veins around their bases. Integument covering them discolored and reddish. Both with well-marked fluctuation, and a distinct, perceptible and diastolic pulsation. The last not only evident to the touch, but also to the eye. Both devoid of thrill and *bruit de soufflet*.

Before giving Mr. MacDonnell's remarks upon the distinction between this form of empyema and thoracic aneurism, I will cite two cases from the London *Lancet*, of May 31st, 1862.

Case I.—St. Mary's Hospital, June 2d, 1857. Edward S., æt. 49. He describes the symptoms of acute pleurisy of the left side, from which he has suffered for eight weeks. Has noticed the progressive development of a swelling just above the left nipple, accompanied by a dull, aching, and occasional throbbing pain. On examination, an unusual prominence over left mammary region, firm, and pain not much increased on pressure. An indistinct undulatory motion, isochronous with the pulse, perceived in intercostal spaces, below mammary line of left side. No aneurismal bruit to be heard. Percussion dull over cardiac region, extending to about an inch above the nipple line, and to a corresponding extent posteriorly, with absence of breath-sounds. Breathing good above scapula and in front of chest. June 3d.—Elastic sensation in tumor, also slight swelling in space between fifth and sixth ribs. June 29th.—Abscess burst. July 31st.—Discharged, cured.

Case II.—Charing Cross Hospital, Dr. Willshire. W. S., æt. 35. In the summer of 1861 received a blow on the left side, which deprived him of breath and speech for a short time, and gave rise to a rather enduring sickness. No fixed pain settled at the spot, though he had an uneasy sensation there. A month ago, was so unwell that he took to his bed. Rather thirsty, and had a certain amount of cough, though he did not suffer any stabbing pain in the side on drawing breath. Admitted an out-patient the 5th of last January. The clinical assistant found him sitting upright upon a sofa, a position he had been compelled to adopt some time previous. Much dyspnœa. Coughing frequently. Sputa purulent. He was emaciated, cheeks flushed, ends of fingers clubbed. He complained of palpitation, and laid some stress on there being a lump in his side. Upon examination, a tumor was seen bulging out from the eighth intercostal space, at the junction of the diaphragm with the ribs, transversely oval, the size of a hen's egg. The superjacent skin was of a bluish-red color. On closely inspecting it, a pulsation, synchronous with the heart's beat, was observed. By palpation, a pretty forcible pulsation could be felt, but not any thrill or bruit could be detected by it or by auscultation. The first and second sounds of the heart, however, were to be heard there very plainly. The latter organ was but slightly removed from its normal position. The tumor simulating, in some respects, an aneurism, the clinical assistant requested Dr. Willshire to visit the case with him. Dr. W. arrived at the diagnosis of pulsating empyema of necessity. He passed an exploring needle into the tumor, and pus made its appearance in the groove of the instrument. An incision was now made, and a pint and a half of thick greenish pus evacuated. May 22d.—Left the hospital nearly well. Dr. Willshire, in some remarks to the class, said:—"Let them recollect the immense relief that may be given by freeing the pleura of pus, and the non-necessity of any untoward effects to follow from the entrance of air into the place such pus has occupied. He did not mean to say that the entrance of air should not be prevented were it easily to be accomplished, but it was not so, under any circumstances, unless the operation was performed under water or with a complex apparatus of capillary trocars and suction pump. Both these methods had been followed, and he considered them as unnecessary as they were fussy and imperfect in one important relation." The compiler of this article had the misfortune to say nearly the same thing at the Society for Medical Improvement a few weeks since; but under correction of Dr. Bowditch he finds and is happy to acknowledge that, like Mr. Winkle, of the Pickwick Club, it was "only the awkward gentleman *in* the skates!"

In regard to the diagnosis between the pulsating empyema of necessity and thoracic aneurism, Dr. MacDonnell remarks:—"When compared with aneurisms, we have, in both cases, tumors occurring in patients who for a length of time complained of pain in the side, difficulty of breathing, cough, inability to lie but on one side; whose constitutions were exhausted by the protracted and distressing nature of their complaints, and in whom the outward progress of the disease was marked by severe pain at a particular point, in which, after a time, a small tumor, of a soft and yielding nature, is observed, which gradually increases in size, is totally devoid of pain, and presents well-marked *diastolic pulsation.* But, on the other hand, the history of the last two cases was that of pleurisy by effusion; their duration also (three years) was greater than the average length of time that patients with thoracic aneurisms live, this being about two years. (One case cited lived seven.) Many of the usual symptoms of the affection are absent, such as dysphagia, the peculiar aneurismal cough, the *bruit de soufflet* (not always present), and a thrill sensible to the hand. So far as I have been able to ascertain, aneurism of the thoracic aorta has never presented itself externally in two situations so widely separated. They were also distinguished from aneurism in the following particulars: the greater portion of the affected side was dull and without respiratory murmur (this may also exist in aneurism just before death from rupture of the sac and effusion of the contents into the cavity of the chest), yet the pulsation was *only* felt in the external tumors, in this respect differing essentially from aneurisms, in which the pulsation, thrill and *bruit de soufflet* are most intense at the point of maximum dulness; and though by pressure on a bronchial tube, aneurisms may prevent the entrance of air into the part of the lung to which the tube leads, and thus produce absence of murmur, yet this portion of lung will yield a clear sound on percussion." But it is in the distinction between empyema and cancer of the lung, particularly pulsating cancer, that the difficulty lies. "For in many instances of cancer of the lung the patients evidently suffered at the commencement of their illness from pleurisy, excited by ordinary causes and followed by empyema." Three cases are given, the first from Dr. Graves's Clinical Medicine, page 792, the second from Heyfelder's *Archives Générales de Médecine*, the third from Dr. Stokes. In that of Dr. Graves, the patient had the following symptoms: decubitus on the affected side (the right), fixed condition of that side; stitches on drawing a deep breath. Physical signs—universal dulness, with bronchial respiration of right lung; no râle; no vocal fremitus; no resonance of voice. At *post mortem*, the whole right lung a mass of encephaloid matter, pleura thickened and dense. In Heyfelder's case the patient was twice attacked with acute pleurisy. When he first saw him, he was laboring under acute pain in the left side. Stitch on deep inspiration; inability to lie in any position but on the affected side. The left side was fixed and also dilated. The physical signs were complete dulness all over the left lung, with absence of respiratory murmur. No ægophony over this side. The heart was dislocated to the right of the sternum, and in the situation usually occupied by it there was a soft elastic tumor the size of two fists. Right lung sounded clear on percussion everywhere; respiration puerile, without râle. At the *post mortem*, the left lung was found a white lardaceous mass, softened in the centre. The external tumor had sprung from this, and proceeded outwards between the ribs; it was also softened in the centre, and a direct communication existed between these points of softening. Now supposing that these tumors had possessed the pulsation which every day's observation shows that tumors of this kind are extremely likely to enjoy, how could such a case be distinguished? "The grounds of diagnosis could not be derived from the history of the cases, from the sufferings of the patients, from the physical signs, or the nature of the tumors, supposing they had pulsation; nor from their position, for an empyema may point and an encephaloid may form on any part of the thorax. Nor could the comparison of the two sides of the chest afford much assistance, for in two cases of malignant disease, and in two of the empyemas, the dulness and loss of murmur were confined to one side." In these obscure cases," says the author, "considerable assistance may be derived from a consideration of the points laid down by Dr. Stokes as diagnostic between encephaloid disease of the lung and the ordinary affections of that organ. Thus, in empyema we do not have the remarkable varicose and tortuous condition of the venous system, accompanied by œdema of the chest and arm, occurring *only* on the affected side. For though it is mentioned that varicose veins surrounded the *bases* of the tumors in two of the foregoing cases, yet such a condition is very different from that alluded to in Dr. Stokes's paper. Next is given the peculiar expectoration, resembling black currant jelly. Next, the appearance of soft, elastic, painless tumors in different parts of the body."

I offer no apology for adding the following case from Dr. Krause, of Dantzic.

Nisten Nadolski, æt. 40, of slender make, admitted Feb. 21st. Had always enjoyed good health, never suffered from chest complaints, and was seized with pneumonia of the right side, which ran its usual course. At the end of four weeks the patient was, by her own desire, dismissed, although she had still some difficulty of breathing, with purulent sputa, and there was still dulness on percussion at the base of the right side, and want of respiratory murmur. She continued to improve at home. The cough disappeared. At the end of four weeks, difficulty of breathing again occurred, the expectoration returned. She became hoarse, and complained of pain on respiration. Re-admitted on the 27th of May. Now considerably emaciated, and had smart fever. Respiration hurried, and right side a little enlarged. A firm tumor was observed under the right armpit, but somewhat anterior, which rested on the ribs; had a natural color, and was slightly painful. A vein, about the size of a quill, spread over it, running down the arm-pit. The patient had first remarked it fourteen days previously. The glands in the axilla were free from swelling. Respiration heard at the summit and base of the lung, but wholly absent at the middle portion. Percussion dull over the whole right side. Normal only under the clavicles. Expectoration considerable, of a dirty green. She lay continually on her back, and slept little. The tumor continued to increase in size, became livid, and fluctuation was felt. It was opened by a bistoury. No pus appeared, but a bloody-colored serum, and the incision was immediately filled with a grumous, homogeneous mass. There was considerable hæmorrhage. She died on the 6th of June. The middle portion of lung was occupied by an encephaloid mass. The external tumor being merely a portion, protruded through the intercostal space. W. C. B. Fifield.

Harrison Square, October 17*th,* 1862.

DOUBTFUL PREGNANCY.

[Read before the Suffolk District Medical Society, September 27th, 1862, by JAMES AYER, M.D., and communicated for the Boston Medical and Surgical Journal.]

MRS. H., æt. 44 years, of strumous diathesis, nervous, pale and anæmic, the mother of several living children, and had suffered six or seven miscarriages; menstruation regular, though pale and scanty; her youngest child ten years old; was treated for anæmia and a goitrous enlargement of the thyroid gland. Her pulse was feeble, and appetite capricious, though she walked, twice a week, from her house to my office, a mile or more in distance. Large quantities of blood had previously been lost in the abortions, and her labors had been severe and recoveries therefrom protracted. Under a treatment of the preparations of iron internally, and of iodine externally, the tumor of the throat gradually disappeared. After a few months she ceased to call upon me.

Several months after, the patient called to say that the catamenia had ceased, and that her breasts had increased in size and sensibility; that her appetite for breakfast had failed, and that she felt in all respects as she had done in the early stages of pregnancy. I gave no opinion, but advised delay. In four to five months after the cessation of the menstrual show, she reported "motion" in the left abdomen. The fœtal heart could not be heard, though slight motion could be felt through the clothes. Meanwhile the mammæ had apparently increased, and the areolæ had become bronzed and the lacunæ enlarged—whether recently or not, I could not determine. The patient had noticed a slight secretion of milk in the nipple.

The convictions of Mrs. H. were of pregnancy; and, from appearances, I was inclined to concur in the opinion. As time wore on, the abdomen gradually increased; but when firmly pressed, there was not the tumor-feeling to be expected. The patient remarked that she always carried her burden more back, and her figure changed but little up to confinement. This I could allow for in her peculiar form. At the fifth and sixth month, a bloody discharge occurred from the uterus—moderate in quantity, but constant from day to day. At the sixth and seventh months the os tincæ, on examination, was apparently shortened and thickened, and corresponded in size and appearance to what is usual at those periods.

The urine was somewhat scanty, with lateritious deposit. The patient was kept quietly in bed. Her appetite was light, though the general health was pretty good.

Her proportions increased up to the ninth month, and so did the motion, confined to the whole of the left abdomen—so apparent that it was noticeable, from raising the clothes, half way across the room. Still there was no fœtal heart, and no decided tumor.

Dr. Storer was called, and, after examination, expressed doubts of pregnancy. At his suggestion, the os was dilated by sponge-tents for a few days, and subsequently Simpson's sound was introduced two and a half inches, and swept the uterine cavity.

Thus ended this case of supposed pregnancy. Too much reliance evidently had been placed upon the patient's experience and sensations, and too much allowance had been made for the absence of physical signs.

Subsequently the case was treated by remedies addressed to the kidneys, nervous system, and for invigorating the blood. So rapidly did the patient recover, that in a few weeks thereafter she was able to go into the country. Her health has continued very good since—the space of an entire year.

The enlargement of the mammæ and abdomen, in this case, was remarkable—and still more so the powerful and long-continued motion. Apparently there was no disease, either functional or organic, to produce these anomalous symptoms. The whole deception, I suppose, is to be attributed to those remarkable manifestations sometimes witnessed at the period of catamenial cessation. At the close of the case, it appears strange that there should have been a mistake in diagnosis; but during its progress, so deceptive were many of the symptoms, I confess I am not surprised at it.

A COMMON CAUSE OF BALDNESS.

[Communicated for the Boston Medical and Surgical Journal.]

It has doubtless been noticed by almost every one, that while baldness is common with men it is very rare with women, and the question very naturally arises, "why is it thus?"

Some have thought that the want of *ventilation*, when the head is covered with a hat, or cap, is a sufficient reason. But I think it can be shown that there is a better one, although the hat will still be chargeable with the mischief; not, however, because it excludes the air, but because it *compresses the veins* that return the blood from the scalp. This is especially true of the hard, unyielding hat of fashion. If one would satisfy himself upon this point, let him inquire whether baldness is, or is not, more common among those who are in the habit of wearing the stiff, dress hat, than among the other classes. For this purpose let him attend the opera or some fashionable church, and then some gathering of the more humble classes, and note the difference as regards the relative number of bald heads. But I will offer a better and more positive reason for making an attack upon the "stove pipe" hat. Please turn to your bald-headed friend—who is sure not to be far away—and place your finger, with a moderate pressure, upon the frontal vein, and note how speedily it becomes swollen and the scalp turgid. Ask him if he does not experience an uncomfortable sense of fulness and constriction about the head, whenever he wears the hat, and especially if in the hot sun, and I am sure he will, three times out of four, tell you he does. This, of course, need not apply to cases of syphilitic baldness, or to any case where there is known to be some other and specific cause. But I speak of ordinary cases of baldness without a well known cause.

But it may be asked, "if the hat be the real cause of baldness in the one case, why are not all thus affected who wear the hat?" The reasons are obvious, and at the same time of such a nature as to sustain the propositions already advanced. The class of bald-headed men of whom I am speaking, for the most part, I believe, have a certain peculiarity or type of organization. Their tissues are soft and pliable; their veins are large, superficial and *easily compressed;* and it is quite noticeable that a large proportion of them have a large occipito-frontal diameter to the head—as compared with the bi-temporal—thus favoring the compression of the frontal and occipital veins. Owing to the natural shape of the head, the temporal veins are probably not often interfered with by the hat. So well do these peculiarities of structure correspond with the facts of baldness, that, in well marked cases, I believe it would not be difficult to point out before hand, the young man who will, or will not, become bald under the pressure of the hat if long worn. But I am inclined to think the case is too plain for argument, and that to suggest it to the observer is sufficient. That a long continued interruption of the venous currents of the scalp would induce disease and decay, no one, I suppose, will question. And now it will be asked, what shall be done to remedy the evil, if my propositions thus far are correct? I know of but one way, and that is to remedy the hat. Let it be so constructed as to leave untouched the facial, occipital and temporal veins. P. K. G.

Aurora, Ill., October 8, 1862.

CASE OF GUNSHOT WOUND OF THE HEAD.

[Communicated for the Boston Medical and Surgical Journal.]

Daniel W. Hatch, 83d Penn. regiment, was brought to the Presbyterian Church Hospital, Georgetown, on the 1st of September, having been wounded the day previous at the battle of Bull Run. Upon examination, it was found that there was a fracture of the skull near the right frontal sinus, the ball entering at that point, and passing along the infra-orbital process of the maxillary bone and through the posterior nares and lodging in the left antrum. Vision of the right eye was completely destroyed. The pupil is irregularly dilated to nearly the whole circumference of the iris. The olfactory nerves are partially affected, also the Schneiderian membrane. There is partial paralysis of the motor nerves, the patient being able to open the mouth only about one half inch. This difficulty, however, is fast disappearing. The general health of the patient is excellent, and he thinks of returning home. The ball still remains in the left antrum, causing quite a perceptible protuberance of the cheek bone.

RADICAL CURE OF FISTULA IN ANO, WITHOUT THE USE OF THE KNIFE.

[Reported by D. B. Hoffman, Assistant Surgeon U. S. A., San Diego, Cal.]

John J. V—— A——, æt. 38, a citizen of this place, and a wagon-maker by trade, came to me, some three years ago, and complained of there being something unusual the matter with his anus. (He had been troubled slightly with hæmorrhoids for several years.) I made a casual examination of those parts at the time, and found a fistulous opening on the right side of the gut, about three fourths of an inch from the edge of the true orifice, in a highly inflammatory and painful state. I ordered the usual remedies to be used, preceding perquisition, and as soon as the inflammation and painful tenderness had subsided sufficiently, proceeded to make a thorough and careful examination. The result was, the disclosure of a complete fistula, with one opening into the rectum. I then carefully examined and questioned him, as to the present and former condition of the principal organs, with which this disease is frequently found complicated; but no organic cause of any kind could be found. I then told him the condition that he was in, and recommended the usual operation. He objected most emphatically, to this, to use his own language, "cutting business," and desired me to treat him in some other way, which I have done, with good and satisfactory results, as follows. I directed him to remain in his room, and keep as quiet, and rest as much in a recumbent position, as possible; to use a cold-water bath to the affected parts frequently, and, at the same time, throw cold water up the bowel freely, with a syringe. I also injected the fistulous opening once a day with the tincture of iodine, and gave a tablespoonful of the following prescription: ℞. Sulphur flor., rosin. pulv., aa ℥ ss.; mel. desp., ℥ i. M. Ft. electuary. Use once a day. This course of treatment cured him in twenty-three days, and there is not a sign of the fistula, nor has there been at any time during the last three years. His diet during that time was altogether of a bland nature, no solids of any kind were allowed, and the use of tea and coffee was prohibited. Milk and strong beef soups were the principal food used.—*San Francisco Med. Press.*

ON THE DIAGNOSIS OF HÆMOPTYSIS.

By Hyde Salter, M.D., F.R.S., Fellow of the Royal College of Physicians, &c.

I find it not at all an uncommon thing to meet with cases, both in hospital and private practice, in which I feel at first, and occasionally for some time, a doubt as to the source of hæmorrhage which is discharged from the mouth. This uncertainty arises in part from the inaccuracy of observation and looseness of speech of those who are describing their symptoms, in part from being deprived of any opportunity of oneself inspecting the blood discharged, and in part from the clear and entire absence, in some cases, of all distinctive signs as to the whereabouts of the bleeding. A patient tells you he has "spit" blood, or "raised" blood, or "thrown up" blood; but the blood said to be "spat" may have come from the stomach, and the blood said to be "thrown up" may have come from the lungs; or, after having described the method of getting rid of the blood as "throwing it up," the patient on a cross-examination will confess that he coughed it up, or, after having said that he "spits" it, will admit that he never spits it without being sick. I have frequently been told by Irish patients that they "retched" the blood up, when I have found afterwards that it has really come from the lungs. Not unfrequently the closest and most searching cross-examination fails to elicit from your patients the way in which the blood was discharged, and simply because they themselves have exercised no observation at the time the hæmorrhage was occurring, and therefore find it impossible to give you any information one way or the other. If we could always see the blood, a great deal of obscurity would be cleared up, but we often find it has been thrown away, or are shown it upon handkerchiefs, or so intermixed with foreign material, and so long after its discharge, that it has lost all distinctive characters. The last source of uncertainty that I have mentioned—namely, the absence of all distinctive signs as to the whereabouts of the bleeding, is really not uncommon. In the cases of intelligent and self-observant patients, where I have had an opportunity of examining the blood, and ascertaining both by interrogatories and physical examination the condition of the lungs and stomach, I have still had some doubts as to which of these two organs the blood came from.

A case of this last character came under my observation a few days ago, in which the turning point of the diagnosis was sufficiently interesting, and which it is my purpose in the present communication to narrate. I need not enlarge upon the primary and essential importance of an early and correct diagnosis of the seat of the hæmorrhage in cases both of hæmoptysis and hæmatemesis.

I was called, on Sunday, June 22d, by my friend Mr. Guy, of Dorset-square, to see with him, as soon as possible, a patient who was suffering from profuse hæmorrhage. On arriving at the patient's house, I heard from Mr. Guy the following account of his case:—

The patient, who was sixty-eight years old, had been seized with blood-vomiting on the evening of the previous Thursday, and Mr. Guy had been hastily sent for to see him. The quantity of blood which was found to have been discharged was a washhand-basin three parts full. This Mr. Guy saw; it was free from froth. On the following day (Friday) the bleeding was much less; on Saturday it returned profusely, and on Sunday with such violence that I was hastily sent for. Mr. Guy had witnessed a good deal of the hæmorrhage himself, and distinctly ascertained that the blood welled up into the mouth apparently spontaneously, without effort, and without either vomiting or coughing. Gallic acid and other anti-hæmorrhagics had been given, and scraps of ice swallowed at intervals; but so little was the hæmorrhage controlled by these means that the patient was of opinion that the medicine rather provoked it.

On entering the patient's room, I found an old man sitting up in bed, pallid from loss of blood, and with a feeble voice. His breathing was slightly accelerated, and his speech short; but this seemed sufficiently explained by his exhaustion and by other circumstances, not bearing on the source of the hæmorrhage, which I will presently relate. His pulse was between 70 and 80, and except being a little too compressible, was in every way natural. He told me he had no pain anywhere of any kind, and *had* had none. His history was as follows:—

He had always been a man of regular and temperate habits, and had enjoyed good health, except that for many winters past he had been liable to attacks of bronchitis; some of these had been very severe, and for the last few years he had had almost constantly a certain amount of cough and expectoration. Latterly, however, he had been better in these respects, and had been coughing and spitting less than usual; his friends, too, had been telling how much better he was looking. On catechising him, I found that he had had no recent loss of flesh, no loss of power, no streaks of blood with the expectorated mucus, no night-sweats; that he had no loss of appetite, no pain after eating, no vomiting, no epigastric tenderness; in fact, that there was a clear absence of any signs or symptoms pointing either to hæmoptysis or hæmatemesis. I was shown about half a pint of semi-coagulated blood in a basin, and certainly this was free from froth. On close inquiry, it seemed that the blood was generally, if not always, discharged in the way Mr. Guy described, and without any true vomiting.

On examining the chest I found the breathing natural, and the lungs everywhere healthy, except at the posterior part of their bases. On the left side this region was the seat of crepitation; on the right, of no sound whatever; the respiratory murmur was quite lost; that part of the right lung was dumb. Percussion was fairly resonant everywhere; hyper-resonant nowhere. I should mention that the breathing at the apices, and over the *whole* of the *front* of the chest, was compensatory in its character.

This completed the evidence submitted to me.

Now I think it will be admitted that in this case the distinctive signs of the seat of the hæmorrhage were wanting, that the evidence altogether was of a negative character, and that no one could assert on the strength of it that the hæmorrhage was either hæmatemesis or hæmoptysis. This will, I think, appear the more clear if we just consider the distinctive signs of these two hæmorrhages: thus—

In hæmoptysis we have—	In hæmatemesis we have—
The blood frothy.	The blood not frothy.
The blood mixed with sputum.	The blood mixed with food.
The discharge attended with coughing.	The discharge effected by, or attended with, vomiting.
Evacuations not affected.	Evacuations often black.
Pulmonary symptoms and history.	Gastric symptoms and history.

It might be conceived that the physical signs at the lower part of the lungs behind pointed to a pulmonary source of the hæmorrhage; but to my mind the antecedent history of chronic bronchitis deprived these signs of any significance. I felt that the crepitation at the posterior part of the base of the left lung might merely mark the present seat of the chronic bronchitis, and the dumbness of the corresponding region of the right side might depend on nothing more than the partially collapsed and partially emphysematous lung, the seat of some of the old attacks.

Thus I felt in the same doubt as my friend Mr. Guy, and was quite unable to pronounce positively as to the seat of the bleeding, when a circumstance occurred that to a certain extent supplied evidence of a positive nature. Just as I was going to leave, our patient was seized with a violent fit of coughing—the prolonged and fruitless coughing of a weak old man. After repeated efforts the material producing the cough was at length driven through the glottis, and spat from the mouth, when, behold! it was blood—a black clot, as big as a filbert, with one end distinctly frothy.

This was the most conclusive evidence we had as yet obtained, and with this modicum of positive evidence I left our patient, after having suggested the frequent administration of small doses of turpentine and opium.

I did not see him again until Tuesday morning. He had had a good day on Monday, with no profuse hæmorrhage, and only the expectoration of clots. I repeated all my old inquiries, with the view of eliciting, if I could, any further information, until, on being told that all the clots expectorated were singularly alike, the idea occurred to me that a close inspection of them might reveal the seat of their formation, and that they might perchance be found to be moulded in some one part of the air passages. I inquired of the attendant of our patient if the clots appeared to be branched, or if he had shaken them out in water, and, being answered in the negative, I procured a basin of water, and shook out in it the last clot expectorated, and which I was informed was the counterpart of the rest. To my great satisfaction I saw it, as I shook it out, unfold into a tree of blood, a perfect cast of the bronchial tubes, resembling, except in color, the plastic bronchial casts so frequently seen.

The whole thing was now cleared up, as far as the seat of the bleeding went; there could no longer be any doubt that the hæmorrhage was poured out into a principal bronchus, of which, and of the immediate ramifications of which, it formed the mould. And I was inclined to think that this bronchus was the left, for this special reason: on listening at the base of the left lung posteriorly, I found that the crepitation which I had heard so abundantly on my previous examination was quite gone. Now if this crepitation had been due to the patient's chronic bronchitis, as I at first thought it was, it could not have so quickly and so completely cleared away. If not due to the bronchitis it must have been due to the blood—to blood that had gravitated to the most dependent part of the lung from the seat of the bleeding; being, therefore, in the left lung, the bleeding must have been on the left side, and the size of the main trunk of the cast showed that it could not have been moulded in a tube of less calibre than the principal bronchus. I was induced thus to fix upon the exact spot, and say that the left bronchus was the seat of the hæmorrhage.

Now, taking these data, what diagnosis could be built upon them? No other, I think, than that the bleeding was aneurismal; that the aneurism communicated by a small fissure—a fissure so small that the bleeding was intermittent—with the left bronchus; that it was, therefore, probably an aneurism of that part of the aorta beneath which the left bronchus passes—i. e., the convexity of the arch, or the commencement of the descending portion; lastly, that the aneurism was small, as it revealed itself by no physical signs—there was no pain, no dysphagia, no pulsation, no murmur, the pulse was alike in both wrists. There was one circumstance in the form of this clot that, as I interpret it, strongly pointed to an aneurismal origin of it. Close to the large extremity of the main trunk, two branches seemed to arise by a common stem; but on separating these branches it was found that they were adherent at their extremities; in fact, they formed a ring. Now, I cannot conceive how a coagulum of this form—an unramified ring—could be moulded in a bronchial tube. I think it must have been formed in the aneurism, and dragged thence when the clot was discharged; that it was, in fact, a portion of the coagulated blood in the aneurism; that the size of the ring probably marked the size of the aneurism, and that the pedicle by which it was attached occupied the orifice of communication between the aneurism and the bronchus. This may seem making extensive deductions from small premises, but I do not see how the annular form of this part of the clot can be otherwise explained.

Such was and is my diagnosis of this case, and its subsequent history has but confirmed my opinion. I have not seen the patient now for a fortnight (for, having expressed to the relatives my opinion as to the hopeless nature of the case, they imagined I had arrived at the end of my tether in the way of treatment, and that some one else might be richer in resource, and so sent for that some one else); but I have heard from Mr. Guy that the hæmorrhage still continues, that the patient is getting increasingly blanched by it, that casts are frequently expectorated, though not so perfect as the one I have described, and that there is still the same absence of symptoms, either of stomach or lung disease, and of signs of aneurism.

The great point of interest about this case, and that which to me appears to make it worth recording, is the peculiar circumstance that rendered certain the previously doubtful seat of the hæmorrhage, and at once reversed the diagnosis which had in the first place been formed.

In concluding, I cannot but remark that this case seems to me to confirm an opinion I have long entertained as to the nature of those cases of supposed plastic bronchitis in which hæmoptysis precedes or accompanies the discharge of the casts. I have always suspected that in these cases the fibrinous casts are the result of the hæmoptysis, and not the hæmoptysis the result of the detachment of the casts. It seems impossible to imagine how the discharge of a peculiar inspissated mucous exudation (and the ordinary bronchial casts are nothing more) can be a cause of hæmorrhage; while, on the other hand, decolorization of coagulated blood occupying the bronchial tubes would furnish pale and ramified casts. Moreover, it seems difficult to imagine why the discharge of the casts should in some cases always be attended with profuse hæmorrhage, and in other cases with none, except on the supposition of an essential difference in the nature of the casts in the two cases. I remember some time ago being told by a physician, of a case in which the late Dr. Todd expressed an opinion that the hæmoptysis was due to the detachment of bronchial casts, which he predicted in a few days would appear. In a day or two, when the bleeding was pretty well over, they *did* appear, and Dr. Todd got no small *kudos* for his prophecy, which was thought little less than miraculous. My informant expressed the belief, and I quite concurred with him, that the casts spat up after the hæmorrhage were nothing but decolorized fibrin whose discharge had, in some way or other, been delayed.—*London Lancet.*

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, OCTOBER 23, 1862.

Our readers will be interested in the following communication and the accompanying Army Order, which show that the subject of a distinct ambulance organization has not been entirely neglected heretofore, at least in some departments of the army. It does not appear that the plan proposed was ordered for any other department than that exclusively under the command of General McClellan. In its details it seems to be excellent, and all that could be desired—on paper. We have heard nothing of its practical working. It will be remembered that Dr. Bowditch's lamentable experience of the entire want of system in removing the wounded from the field of battle was near Washington, at a time when the chief command of the troops in that vicinity was not with the General who issued the order below. Whether any such organization existed there or not, does not help the matter much. If it did exist, there was the most culpable negligence on the part of those whose business it was to carry it into effect: if it did not exist, the opprobrium is just as great, and no official position should be high enough to screen the delinquent from the indignation of an outraged community.

CAMP OF 28TH REGT. MASS. VOLS., ISRAEL CREEK,
IN PLEASANT VALLEY, MD., OCT. 11th, 1862.

To Dr. Wm. J. Dale.

DEAR SIR,—Your note of Oct. 3d reached me last evening, and just as I was about to answer it this morning a Medical Journal of September 25th reached me. Looking over it before writing to you, the remarks of Dr. Bowditch met my eye, and his desire to have a proper organization for the ambulance corps reminded me of an order in reference to some such organization I had accidentally met with, and which, if measures were taken to make it anything more than an organization upon paper, would be of much assistance to the surgeon, and of great advantage to the wounded. The absence, on account of sickness, of the Medical Director of our Division, for a couple of weeks, made me, for the time being, Medical Director, i. e., by order of Gen. Wilcox, and an attempt was made to organize the corps in accordance with this order, but it was found that unless the heads of departments would interest themselves in its enforcement very little could be done. Thus, article 2d of the order provides that the allowance shall be "*one transport cart, one four-horse and two two-horse ambulances* for a regiment"; but it is impossible to procure either transport carts or four-horse ambulance wagons, and the transportation for the Hospital Department is so limited that the surgeon must content himself with carrying what he can in one of the ambulance wagons he *can* procure. Again, article 9 is based upon a myth, for there is no reserve corps of surgeons that I know of. Neither have medicine wagons been furnished to Divisions. Indeed, so little trouble has been taken in the formation of the ambulance corps in accordance with this order, that the existence even of the order is unknown to most surgeons here, and few know anything about its details.

I take the liberty of sending you a copy of the order, which does not belong to me, on account of the benefit which may result from giving it publicity, and perhaps thereby furthering its enforcement.

Yours &c., P. A. O'CONNELL.

HEADQUARTERS, ARMY OF THE POTOMAC, CAMP NEAR
HARRISON'S LANDING, VA., AUGUST 2D, 1862.

General Orders, No. 147.

The following regulations for the organization of the Ambulance Corps and the management of ambulance trains, are published for the information and government of all concerned. Commanders of Army Corps will see that they are carried into effect without delay.

1. The Ambulance Corps will be organized on the basis of a Captain to each Army Corps, as the Commandant of the Ambulance Corps; a 1st Lieutenant for a Division, a 2d Lieutenant for a Brigade, and a Sergeant for each regiment.

2. The allowance of ambulances and transport carts will be, one transport cart, one four-horse and two two-horse ambulances for a regiment, one two-horse am-

bulance for each battery of artillery, and two two-horse ambulances for the Headquarters of each Army Corps. Each ambulance will be provided with two stretchers.

3. The privates of the Ambulance Corps will consist of two men and a driver to each ambulance and one driver to each transport cart.

4. The Captain is the commander of all the ambulances and transport carts in the Army Corps, under the direction of the Medical Director. He will pay special attention to the condition of the ambulances, horses, harness, &c., requiring daily inspections to be made by the commanders of Division ambulances, and reports thereof to be made to him by these officers. He will make a personal inspection once a week of all the ambulances, transport carts, horses, harness, &c.; whether they have been used for any other purpose than the transportation of the sick and wounded, and medical supplies; reports of which will be transmitted through the Medical Director of the Army Corps to the Medical Director of the Army every Sunday morning. He will institute a drill in his corps, instructing his men in the most easy and expeditious method of putting men in and taking them out of the ambulances, taking men from the ground and placing and carrying them on stretchers, observing that the front man steps off with the left foot and the rear man with the right, &c. He will be especially careful that the ambulances and transport carts are at all times in order, provided with attendants, drivers, horses, &c., and the kegs daily rinsed and filled with fresh water, that he may be able to move at any moment. Previous to and in time of action, he will receive from the Medical Director of the Army Corps, his orders for the distribution of the ambulances, and the points to which he will carry the wounded, using the light two-horse ambulances for bringing them from the field, and the four-horse ones for carrying those already attended to farther to the rear, if the Medical Director considers it necessary. He will give his personal attention to the removal of the sick and wounded from the field, and to and from the hospitals, going from point to point to ascertain what may be wanted, and to see that his subordinates (for whose conduct he will be responsible) attend to their duties, in taking care of the wounded, treating them with gentleness and care, and removing them as quickly as possible to the places pointed out; and that the ambulances reach their destination. He will make a full and detailed report, after every action and march, of the operations of the Ambulance Corps.

5. The 1st Lieutenant assigned to the Ambulance Corps of a Division, will have complete control, under the commander of the whole corps and the Medical Director, of all the ambulances, transport carts, ambulance horses, &c., in the Division. He will be the Acting Assistant Quartermaster for the Division Ambulance Corps, and will receipt and be responsible for the property belonging to it, and be held responsible for any deficiency in ambulances, transport carts, horses, harness, &c., pertaining to the Ambulance Corps of the Division. He will have a travelling cavalry forge, a blacksmith and a saddler, who will be under his orders, to enable him to keep his train in order. He will receive a daily inspection report of all the ambulances, horses, &c., under his charge, from the officer in charge of the Brigade Ambulance Corps, will see that the subordinates attend strictly to their duties at all times, and will inspect the corps under his charge once a week; a report of which inspection he will transmit to the commander of the Ambulance Corps.

6. The 2d Lieutenant in command of the ambulances of a Brigade will be under the immediate orders of the commander of the Ambulance Corps for the Division, and have superintendence of the Ambulance Corps for the Brigade.

7. The Sergeant in charge of the Ambulance Corps for a regiment will conduct the drills, inspections, &c., under the orders of the commander of the Brigade Ambulance Corps, and will be particular in enforcing rigidly all orders he may receive from his superior officers. The officers and non-commissioned officers of this corps will be mounted.

8. The detail for this Corps will be made with care by commanders of Army Corps, and no officer or man will be selected for this duty except those known to be active and efficient, and no man will be relieved except by orders from these Headquarters. Should any officer or man detailed for this duty be found not fitted for it, representation of the fact will be made by the Medical Director of the Army Corps to the Medical Director of this Army.

9. Two medical officers from the reserve corps of surgeons of each Division, and a hospital steward who will be with the medicine wagon, will be detailed by the Medical Director of the Army Corps, to accompany the ambulance train when on the march, the train of each Division being kept together, and will see that the sick and wounded are properly attended to. A medicine wagon will accompany each train.

10. The officers connected with the Corps must be with the trains on a march, observing that no one rides in the ambulances without the authority of the medical officers, except in urgent cases; but men must not be allowed to suffer, and the officers will, when the medical officers cannot be found, use a sound discretion in this matter, and be especially careful that the men and drivers are in their proper places. The place for the ambulances is in the front of all wagon trains.

11. When in camp the ambulances, transport carts and Ambulance Corps will be parked with the Brigade, under the supervision of the commander of the corps for the Brigade. They will be used on the requisition of the regimental medical officers, transmitted to the commander of the Brigade Ambulance Corps, for transporting the sick to various points, and procuring medical supplies, and *for nothing else.* The non-commissioned officer in charge will always accompany the ambulances or transport carts when on this or any other duty, and he will be held responsible that they are used for none other than their legitimate purposes. Should any officer infringe upon this order, regarding the uses of ambulances, &c., he will be reported by the officer or non-commissioned officer in charge, to the commander of the train, all the particulars being given.

12. The officer in charge of a train will at once remove anything not legitimate, and if there be not room for it in the baggage wagons of the regiment, will leave it on the road. Any attempt by a superior officer to prevent him from doing his duty in this or any other instance, he will promptly report to the Medical Director of the Army Corps, who will lay the matter before the commander of that corps. The latter will, at the earliest possible moment, place the officer offending in arrest for trial for disobedience of orders.

13. Good serviceable horses will be used for the ambulances and transport carts, and will not be taken for any other purpose, except by orders from these Headquarters.

14. The uniform of this Corps is, for privates a green band two inches broad around the cap, a green half chevron, two inches broad, on each arm above the elbow, and to be armed with revolvers. Non-commissioned officers to wear the same band around the cap as a private; chevrons two inches broad, and green, with the point towards the shoulder, on each arm above the elbow.

15. No person will be allowed to carry from the field any wounded or sick, except this corps.

16. The commanders of the Ambulance Corps on being detailed will report without delay to the Medical Director at these Headquarters for instructions. All Division, Brigade or Regimental Quartermasters having any ambulances, transport carts, ambulance horses or harness, &c., in their possession, will turn them in at once to the commander of the Division Ambulance Corps.

BY COMMAND OF MAJOR GENERAL McCLELLAN:

Official. S. WILLIAMS, *Assistant Adjutant General.*

VERMONT MEDICAL SOCIETY.—This Society held its Annual Meeting at the State House, Montpelier, Wednesday and Thursday, Oct. 15th and 16th. The President, Dr. A. T. Woodward, of Brandon, in the chair. The record of the last meeting having been read and approved, the Chair appointed Drs. Woodward of St. Albans, Clark of Montpelier, and Stiles of Windsor, a Committee on Credentials; and Drs. Chandler of St. Albans, Russ of Pomfret, and Houghton of Pawlet, a Committee on Nominations.

The following gentlemen were elected members:—D. R. Story, M.D., Proctorsville; N. W. Fairchild, M.D., Milton; George W. Nichols, Bethel; C. H. Tenny, M.D., Hardwick; E. G. Judkins, M.D., Waitsfield; E. P. Fairman, M.D., Walcott; J. E. Frink, M.D., Waterbury; W. W. Braley, M.D., Chelsea; T. G. Simpson, M.D., Vershire; H. F. Crane, M.D., Ferrisburgh; Daniel C. Joslin, M.D., Waitsfield; Lester Kingsley, Moretown.

The credentials of Dr. E. M. Snow, delegate from the Rhode Island Medical Society, were presented, and Dr. Snow was invited to sit with the Society, and participate in the deliberations of the same.

The following resolution was adopted:—

Resolved, That this Society send a delegate to each New England State Society, and also to the New York State Society, at their annual and semi-annual meetings, and report to this Society at its next subsequent meeting.

In accordance with a suggestion by Dr. Stiles, each member was called upon by the President for a statement of the diseases prevalent in his own practice and vicinity. Dr. Snow, the delegate from Rhode Island, was called upon, and made some interesting remarks upon the condition of the Rhode Island Societies, and other matters of like connection.

A great portion of the afternoon was taken up in the discussion, by members, of various diseases which have come to their attention.

The following was adopted:—

Resolved, That each member of the Society (in practice) be requested to report a written case treated by himself, at the annual and semi-annual meetings of the Society, said reports to be kept on file by the Secretary, with a view to their publication with the Transactions of the Society.

Thursday, October 16th.—The Society met, pursuant to adjournment, the President in the chair. The Committee on Nominations reported the following named gentlemen for officers for the ensuing year, which report was accepted and adopted:—For *President*, J. N. Stiles, M.D., Windsor; *Vice President*, A. S. Houghton, M.D., Pawlet; *Recording Secretary*, Wm. McCollom, M.D., Woodstock; *Corresponding Secretary*, C. B. Chandler, M.D., Montpelier; *Librarian and Treasurer*, Charles Clark, M.D., Montpelier. *Delegates to Castleton Medical College*, J. L. Chandler, M.D., St. Albans, and Cullen Bullard, M.D., New Haven. *Delegates to Burlington Medical College*, A. C. Welch, M.D., Williston, and T. G. Simpson, Vershire. *Committee of Printing*, H. F. Stevens, M.D., St. Albans; C. L. Allen, M.D., Middlebury; J. Perkins, M.D., Castleton. *Executive Committee*, F. N. S. Morgan, M.D., Pownal; W. H. H. Richardson, M.D., Montpelier; J. Crowley, M.D., Mount Holly. *Delegate to the New York Medical Society*, R. C. M. Woodward, M.D., St. Albans. *Delegate to the Rhode Island Medical Society*, Wm. McCollom, M.D., Woodstock. *Delegate to the Connecticut Medical Society*, J. N. Stiles, M.D., Windsor. *Delegate to the Massachusetts Medical Society*, C. M. Rublee, M.D., Montpelier. *Delegate to the Maine Medical Society*, Joseph Perkins, M.D., Castleton. *Delegate to the New Hampshire Medical Society*, E. A. Knight, Springfield.

The following resolution was adopted:—

Resolved, That the Vermont Medical Society recommend to the Legislature of said State to authorize the Governor of the State to send to the regiments of Vermont as many of Lambert's new and improved tourniquets as he in his judgment may deem best.

The following resolution was adopted:—

Resolved, That this Society recommend to the Governor, that the board of surgeons to examine candidates for regimental and assistant surgeons, be appointed from those of the profession who are not interested directly in our medical schools; and that the Secretary be instructed to transmit a copy of the resolution to the Governor.

Voted, That the semi-annual meeting of the Society be holden at Woodstock, at such time, in the month of June next, as the Secretary shall designate.

The annual address by the President was delivered on Wednesday evening, in Representatives' Hall, and was listened to with an attention rarely elicited on similar occasions.

SURGEONS FOR THE RHODE ISLAND REGIMENTS.—The Medical Commissioners for the examination of surgeons and assistant surgeons for the regiments of Rhode Island, meet at the office of Dr. Mauran, in Providence, on Wednesday and Saturday of each week, between 1 and 2, P.M. We understand that there is likely to be a deficiency in the number of applicants from the profession in Rhode Island, and that several from other places would be accepted, after passing the examination. Notwithstanding the large number of medical men which the exigencies of the times have drawn from civil practice for our own regiments, there are probably still remaining in Massachusetts young men of promise who might advantageously accept the offer here held out to them.

Health of the Mass. First Regiment.—The health of the regiment at the present time is represented to be good, there being only ten patients in the hospital. This healthy state of the regiment is, in a great measure, owing to the good care which is taken of it by the chief surgeon and his able assistants.

Messrs. A. Williams & Co., booksellers, of this city, are about issuing a report of the trial of George C. Hersey for the murder, by poisoning, of Betsey Frances Tirrell. It will be comprised in an octavo volume, and will possess peculiar interest to the medical profession on account of strychnine having been used to accomplish the purpose of the murderer, and few reports having been published of trials for poisoning by that agent. In March, 1861, that of Richard S. Richardson and Sarah Ann Healey, in New Hampshire, was published in this Journal, and frequent reference was had to it in the course of Hersey's trial.

Surgeons G. Derby of the 23d and G. A. Otis of the 27th Massachusetts regiments, now doing hospital duty at Newbern, North Carolina, have been severally relieved therefrom, and ordered to join their respective regiments.

Surgeon Peter Pineo has been assigned to duty as Medical Director of the 1st Army Corps.

Surgeon Frank H. Hamilton, U. S. Vols , recently Medical Director of the Army Corps under General Keyes, has been detailed to take charge of the Central Park Hospital, in New York.

The hospital accommodations at Baltimore and Philadelphia have been directed to be increased 2000 beds each.

A medical officer has been detailed to visit Wilmington, Delaware, to select a suitable building and prepare a hospital in that city.

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, October 18th, 1862.

DEATHS.

	Males.	*Females*	*Total.*
Deaths during the week,	37	33	70
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	34.5	35.6	70.1
Average corrected to increased population,	..	..	77.3
Deaths of persons above 90,	..	0	0

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
19	4	1	3	4	0	4	1	0

Communications.—Valuable papers have been received, from Dr. W. W. Wellington, of Cambridgeport; Dr. Thomas T. Smiley, at the U. S. General Hospital, Hilton Head, Port Royal, S. C.; and Dr. D. W. Cheever, late of the Judiciary Square Hospital, Washington.

Books Received.—Anatomy of the Arteries of the Human Body, Descriptive and Surgical, with the Descriptive Anatomy of the Heart. By John Hatch Power, M.D., Dublin. American Edition. Lippincott & Co., Philadelphia. (From A. Williams & Co., Boston.)—The Hospital Steward's Manual. By Joseph Janvier Woodward, M.D., Assistant Surgeon, U S.A. (From A. Williams & Co.)—The Physician's Pocket Memorandum for 1863. By C. H. Cleaveland, M.D., Cincinnati. (From A. Williams & Co.)

Died,—In New York. Oct. 11th, in the 75th year of his age, Dr. John C. Cheesman, for many years a surgeon of the New York Hospital, and a trustee of the College of Physicians and Surgeons.—Killed, at the battle of Antietam, Sept. 17th, Surgeon W. J. H. White, U. S. Army. Dr. W. was appointed Assistant Surgeon in the Army in 1850, and Surgeon in June, 1862.

Deaths in Boston for the week ending Saturday noon, October 18th, 70. Males, 37—Females, 33. Accident, 3—apoplexy, 1—inflammation of the bowels, 2—disease of the brain, 1—cholera infantum, 4—cholera morbus, 1—consumption, 19—croup, 1—cyanosis, 1—diarrhœa, 6—dropsy, 1—dropsy of the brain, 2—dysentery, 4—erysipelas, 1—remittent fever, 1—scarlet fever, 3—typhoid fever, 1—hæmorrhage, 1—disease of the liver, 2—congestion of the lungs, 2—inflammation of the lungs, 4—marasmus, 2—old age, 1—paralysis, 1—purpura, 1—rheumatism, 2—syphilis, 1—unknown, 1.

Under 5 years of age, 26—between 5 and 20 years, 6—between 20 and 40 years, 17—between 40 and 60 years, 14—above 60 years, 7. Born in the United States, 40—Ireland, 27—other places, 3.

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TWO CASES OF DISEASE OF THE BRAIN.

By W. W. Wellington, M.D., Cambridgeport, Mass.

[Communicated for the Boston Medical and Surgical Journal.]

I.—Abscess of the Cerebrum.

A gentleman, aged 26, a teacher by profession, on the 31st day of March, while engaged in his school duties, was taken with convulsions. During the previous winter months, he had complained of uncomfortable feelings in the head, and particularly of a sense of pressure, as though the brain were too large for the cranium. He had also been subject to what he called "bilious attacks," consisting principally of headache and vomiting, and preceded occasionally by a chill. For three or four years, he had suffered from inflammation, caused by a carious incisor tooth; suppuration frequently occurred, and there was a slight discharge, nearly all the time, through a fistulous passage from the root of the tooth. A noticeable swelling existed on the right side of the upper lip, occasioned by this inflammation. An abscess had recently formed in the usual place, and had been lanced.

On Sunday, March 29th, he was found lying on the floor, insensible. He soon recovered his consciousness, and supposed he had fainted. He remembered lying down on the sofa to take a nap, but had no recollection of anything farther.

On the morning of the 31st instant, while conducting the devotional exercises in his school, he experienced a strange sensation in his head; he was conscious of miscalling words without the ability of correcting himself; he partially lost the control of his hands and arms. He recovered sufficiently to go on with his recitations, until he was seized with convulsions, as already mentioned.

Consciousness soon returned, and he was carried home. During the day, he had two more fits. The convulsive movements began in the little finger of the left hand, then extended to the other fingers, then to the arm, and finally to the muscles on the left side of the face. During the four following days, he had slight returns of the spasms, and there was a partial loss of motion of the left arm and left leg—the arm being more affected than the leg. In other respects he was comfortable; his appetite was good, and his mind was clear; he slept quietly, and confidently anticipated being able to go out in a few days.

On Sunday, the 5th of April, without any special premonitory symptoms, he had a severe fit, lasting several hours; the convulsions, as before, being confined to the left hand and arm, and the left side of the face. During this time, he was partially conscious, and seemed to suffer much from the spasmodic action. For several days there was a strong tendency to these convulsive movements, but this was controlled by chloroform. He had some nausea, which was, perhaps, owing to the chloroform. The pupils were not dilated, and there was but slight, if any, paralysis of the face. The tongue, when protruded, inclined to the left side. He shed tears, and seemed deeply affected, frequently and for slight causes; but his mental faculties continued clear, and he slept well.

On Friday, the 10th of April, he had a severe pain in the eyeballs. This passed off in the course of the day, and went to the head. The pain was excruciating, and recurred at intervals until he died, leaving him, for a part of the time, comparatively comfortable. He was comatose a few hours before his death, which occurred on the evening of the 13th of April, fourteen days from the date of the first convulsion.

The marked symptoms in this case were, 1st—convulsions, affecting chiefly the left arm and the left side of the face; 2d—paralysis, impairing the power of motion of the left arm and left leg, principally the former, and causing the tongue, when protruded, to incline to the left side; 3d—severe pain in the head and eyes, occurring at intervals, during the last four days of his illness.

Autopsy.—In the middle lobe of the right hemisphere of the brain was a well-defined abscess, about the size of an English walnut, filled with very fœtid pus. The upper part of the abscess was near the surface, and it descended into the interior of the brain—not, however, involving the ventricles. The parietes consisted of indurated cerebral substance of a dark color, but the cavity was not lined by a membrane. The brain in the vicinity of the abscess was softened; there was no serous effusion, and no other morbid appearance. The lungs were congested, and, on being cut, presented a very red appearance, owing, perhaps, to the chloroform which had been inhaled.

The treatment consisted of purgatives, leeches and cold applications to the head, counter-irritation to the back of the neck, low diet, and chloroform by inhalation, to control convulsions. On the fourth day, the carious tooth was extracted.

II.—CYST EMBEDDED IN THE CEREBELLUM, WITH EFFUSION INTO THE LATERAL VENTRICLES.

The patient was a highly respectable physician of this city; he had been engaged for many years in the duties of his profession, and continued in practice until compelled to retire by the gradual inroads of a serious, and eventually fatal, disease.

It is not easy to say when this disease commenced, so slight and insidious were its first symptoms. Ten years before his death, he had intermittent neuralgia of the right side of the head, followed by deafness of the right ear. He took large doses of quinine for the relief of the neuralgia, and he attributed the loss of hearing to the effects of this medicine. Soon after, a slight loss of power over the muscles of the right leg was noticed; he was apt to trip in walking; his wife noticed, when she was walking on the right of him, that he leaned heavily against her; his friends perceived a failure in his mental faculties; there was a loss of memory; his judgment was not so good as formerly; it was a common remark that he was growing old very fast. Still he did not call himself sick, and kept about his business as usual.

Four years before his death, he began to have violent attacks of headache. These appeared to be of a neuralgic character, were unattended with heat of the head or flushing of the face, and at first occurred in the night, subsiding at daylight. These headaches continued at irregular intervals for two years or more, increasing in severity, and lasting from a few hours to two or three days.

Meanwhile the paralysis of the right side of the body increased. This paralysis was of a peculiar character. It seemed to be chiefly a want of power to harmonize the muscular movements. In a sitting posture the lower extremities could be freely moved; but any attempt at walking was a failure.

By degrees, the eye-sight became affected. At first, there was double vision, then a dimness of sight, and at last total blindness.

The mental faculties became more and more obtuse; he began to lose control over language; he would begin a sentence, but be unable to finish it. At times, he would become rigid, or slightly convulsed, and would lose, for a time, his consciousness. Sometimes he was irritable, but generally he was calm and hopeful.

The digestive organs remained in good condition. The chief trouble was costiveness; it required large doses of powerful cathartics to move the bowels.

His face was drawn, perceptibly, to the left side. His head was drawn to the right side. He had this inclination of the head to the right, more or less, all his life.

His situation during the last year of his life was wretched in the extreme. He had just consciousness enough to answer, by monosyllables, questions that were put to him. He lay in a somnolent, stupid condition, unable to move in bed, eating and drinking only when he was roused enough to open his mouth; this process had to be repeated at every mouthful. He would apparently have lain and starved without expressing any sense of hunger. The urine and fæces passed involuntarily, the latter only after taking three or four drops of croton oil, and then waiting twenty-four hours. His pulse was feeble, varying in frequency from sixty to eighty beats in a minute. He was emaciated to the last degree, and had troublesome ulcerations over the lower part of the spine, and also on the glans penis. His eyes were insensible to light, but there was no marked dilatation or contraction of the pupils. The right eye, at times, was considerably inflamed. He seemed to have lost the sense of taste, and it made but little difference to him what was given him to eat or drink. He was a complete wreck of a man, bodily and mentally. He died easily, after lying insensible a few hours, at the age of 57.

Autopsy, made by Dr. Ellis. The lateral ventricles contained six ounces of clear serum; the septum lucidum was remarkably transparent.

Projecting somewhat from the base of the cerebellum, on the right side, was a yellowish "capsule," with some transparent cyst-like portions. This was two inches or more in diameter, and formed the lower wall of a large cyst, embedded from one half to three quarters of an inch in the substance of the cerebellum. It contained a brownish, gelatinous substance. The pons Varolii was atrophied, as from pressure by the morbid growth. The medulla oblongata below had also an atrophied look. The optic nerves appeared smaller than usual.

Some old tubercular disease was found at the apex of each lung. The other organs were healthy.

This case seems to confirm the opinion which attributes to the cerebellum "the power of associating or co-ordinating the different voluntary movements." The disease doubtless began in the cerebellum; the effusion into the ventricles occurring at a later period.

It is noticeable that the disease of the cerebellum, and the paralysis, were both on the same side.

CASES IN THE JUDICIARY SQUARE HOSPITAL, WASHINGTON,

Under the care of David W. Cheever, M.D., of Boston.

[Read before the Boston Society for Medical Observation, October 20th, 1862, and communicated for the Boston Medical and Surgical Journal.]

Case I.—M. Spacht, 52d Penn., was wounded at the battle of Fair Oaks, May 31st, 1862. The ball entered from behind the mastoid process of the left temporal bone, passing inside the ramus of the lower jaw, though apparently injuring the articulation, and made its exit through the superior maxillary bone, just beneath the outer corner of the left eye. June 10th, ten days after the injury, he first came under my care. There was inability to open the mouth, except to admit liquids; but no facial paralysis. There was scarcely any suppuration from the wound, but repeated small hæmorrhages, for some days past. His aspect was rather anæmic. He complained of nothing; was fed with broth and milk, and the wound dressed with a solution of persulphate of iron.

In the evening of June 13th, quite free bleeding came on, which was checked by pressure and styptics. The following morning hæmorrhage recurred profusely, pouring out from both the anterior and posterior wounds, displacing the tampons, and rendering the employment of some other means imperative. The *left* common carotid was tied, above the omo-hyoid. In the course of the day, bleeding to the extent of one or two ounces recurred from the gun-shot wound. Afterwards all hæmorrhage ceased; excepting that during the following week there were several small bleedings from the incision made to reach the artery, though not from the main vessel itself. The wound in the head remained rather dry, not suppurating freely. The aspect of the patient was chlorotic and feeble. He was treated with tonics, egg-nogg and beef-tea.

June 18th, or four days after the operation, he was found considerably paralyzed on the *right* side. The right leg nearly powerless—the right arm less so; articulation difficult; febrile, and low.

19th.—Urine involuntary; chills.

21st.—Slight bleeding from incision; paralysis constant, but not complete; aspect very chlorotic.

22d.—Slight hæmorrhage again.

23d.—Failing.

24th.—Died; three weeks after the injury, and eleven days after the ligature. The artery was found to be perfectly plugged with a white, fibrinous clot. It is probable that the patient had lost a very considerable amount of blood before he came under my notice, as evinced by his appearance; and it would seem to be questionable whether the paralysis which supervened on ligature of the carotid was not, in this case, partly owing to the anæmic condition of the brain, rendering it less able to bear the cutting off of one of its main sources of supply.

The bleeding from the gun-shot wound was probably from the internal maxillary artery, or one of its larger branches. It may be asked, then, why the external carotid was not tied in preference to the common, since the internal maxillary is one of the terminal branches of the external carotid. For two reasons. Because it was thought it would be a little more difficult to reach safely and quickly on account of its numerous branches—and the operation had to be done promptly; and also because it was feared that hæmorrhage might return from recurrent branches, as indeed it did, to a slight degree, even after the ligature of the common carotid.

Case II.—J. Campbell, 62d Penn., wounded before Richmond, July 1st, 1862. Entered the hospital, under my care, about one week after the battle. Ball entered at the outer condyle of the right humerus, and passing inwards, made its exit on the inner side of the arm, near the bend of the elbow, in front. Shattered bone can be felt with a probe, yet the arm admits of very considerable motion, of flexion and extension, without severe pain or crepitus. In a day or two the slough began to separate, and suppuration to be established, with considerable constitutional disturbance. July 13th.—The joint and neighboring parts extensively swollen, red, tender and severely painful. Both wounds suppurating. The wound was explored under ether. The outer condyle and the head of the radius were found to be shattered, and the finger could be passed through the wound of exit, in front of the coronoid process of the ulna. Apparently the ginglymoid portion of the joint was untouched. It was noticed that no pulse could be felt in the radial artery at the wrist; yet, although a fortnight after the injury, the appearance, motion, sensation and temperature of the hand were as good as the other. If, then, the brachial artery had been cut off or plugged, it seemed probable that a sufficient collateral circulation had become established. It must be remarked, also, that the radial pulse of the other wrist was deep seated, and difficult to be felt, probably owing to some peculiarity of the artery, for the patient was robust and rosy, and bore no signs of loss of blood or debility. Since the suffering and general disturbance were very great, it was evident that something must be done to relieve the parts of the shattered bone, which nature could not promptly throw off. It certainly seemed too soon to resort to amputation; and as the articular surface of the elbow-joint was opened into by the injury of the external condyle and the head of the radius, the mischief was sure to extend into the rest of the articulation, if only the broken fragments were removed. Excision of the whole joint seemed therefore to promise most hopes of success, and it was done, on the following day, July 14th. The operation was done with an H-shaped incision. The articulation of the ulna with the humerus was found unbroken, but pus had already burrowed beneath the triceps, and denuded the humerus above the condyles. The injury to the radius, also, consisted not only in a shattering of the head, but a split extended down about an inch farther. The whole articular surface was removed. The humerus sawn half an inch above the condyles; the ulna, just below the sigmoid notch, and the radius, was necessarily removed below the tubercle of the biceps. The operation was well borne, and there was but little hæmorrhage. Sutures and adhesive straps were applied, save at the lower corner of the wound, which was left open for drainage, and the arm adjusted on an inside felt splint. Four grains of opium were given in the night.

July 15th and 16th, there was considerable swelling, but little pain.

17th.—Considerable discharge of dark, sanious pus. Constitutional state good.

19th.—Healthy suppuration was established.

20th.—The edges of the wound had separated and were being absorbed, while profuse, florid granulations were appearing in great abundance. As they seemed disposed to bleed, they were dressed with a diluted tincture of myrrh.

Everything seemed to be going on finely, the hand and fore-arm appearing well. But on July 21st, one week after the excision, and three weeks after the injury, I was called to find him with a profuse secondary hæmorrhage issuing from the wound of exit, near the bend of the elbow, and coming, by its size and direction, from the wounded brachial artery. A tourniquet was applied. The amount of blood lost was very considerable; the patient considerably reduced. The pressure of the tourniquet produced great congestion and oozing from the granulations of the excision; and denuded bone could be felt above the end of the humerus. Under these circumstances there seemed to be but little chance of recuperative power enough being reserved to make a false joint at the elbow, and it appeared to the gentlemen with me and myself, that early amputation was the only resource. The patient was stimulated, and the arm amputated midway between the elbow and the shoulder. The pulse was very small during the operation, and but little ether could be borne. Stimulants were used very freely, and by evening he rallied. He recovered perfectly, with a good stump, in the ordinary time.

Case III.—C. Lawrence, 55th New York, wounded at battle of Malvern Hills, July 1st, 1862. Was struck by a ball, or a piece of shell, on the right side of the frontal bone, vertically over the right eye, and about an inch above the superciliary ridge. Now, July 10th, a ragged wound of the integuments, about one inch in extent, reveals portions of the frontal bone, visibly depressed, while the pulsation of the brain can be seen in the fissures of the fracture. No signs of compression. No paralysis. No fever. Pupils natural. Tongue, pulse and bowels well. Aspect fair. Right eye injected. Complains of nausea and constant headache. Although the prognosis of this case must depend much upon the nature of the missile, whether a ball which penetrated the brain, or a piece of shell which glanced off, and although the symptoms were not urgent, yet it seemed proper to remedy the very marked depression, under the fear that the spiculæ of the inner table might gradually irritate the dura mater into something worse than headache and nausea.

July 11th.—He was trephined, and two fragments, half an inch in diameter, and some splinters of depressed bone, removed. The dura mater had a thin clot of blood over part of its visible surface, and at one point a seeming depression, which it was feared might be the wound of a ball, although there was no appearance of wounded cerebral substance, or of pus. No farther exploration was made. The edges of the wound were brought partially together, cold water was applied, and a low diet ordered. There was much pain in the afternoon. Ice was applied.

July 12th.—Pain gone; feels comfortable.

13th.—Laudable pus in moderate amount. Edges of wound look well. No pain. No nausea. No fever.

15th.—Granulations begin to cover over dura mater. Less discharge. Complains of pain only when he moves the head suddenly.

He continued to improve, the wound slowly gaining. At the end of two and a half months from the injury the hole had nearly closed. Treatment consisted in cold applications, quiet, and a strictly vegetable diet.

Case IV.—J. Jasper, 5th Mich., wounded at Fair Oaks, May 31. Admitted June 10th. Ball entered left arm, midway between elbow and shoulder, on outer edge of *biceps*, and passed inwards. No wound of exit. No ball can be felt by the tract of the wound, which is not very deep; nor are any evidences of it to be seen on inside of arm. Apparently a flesh wound, beginning to suppurate, and doing well. Patient is robust and comfortable. Wound being a little inflamed, it was poulticed.

June 11th.—Chills.

12th.—Arm much inflamed; phlegmonous redness, and hard swelling. Some fever. Low diet, and salts.

13th.—Much worse. Severe constitutional disturbance. Great pain. Fever, sweat and distress. Pulse small and rapid. Arm largely swollen, and of a brawny hardness, indurated from axilla to elbow. Several small black blebs near the edges of wound, slightly raised above skin, and containing a thin fluid. Ordered a lotion of lead and opium. Opium, quinine and brandy internally.

14th.—Worse.

15th.—Gangrene extending. Constitutional disturbance very great. To continue food and stimulants, and apply a yeast poultice.

16th.—No better. Gangrene extended two thirds around arm; line of demarcation beginning above. Add egg-nogg to treatment.

17th.—Tongue brown. Pulse small and frequent. Irritative fever severe. Gangrene extending around under side of arm. Increase stimuli.

18th.—The arm girdled by gangrene, and a line of demarcation set up in most of this extent. Disease extending below, towards forearm, which, with hand, is intensely inflamed. Constitutionally somewhat better.

The gangrene being limited above, and keeping up an exhaustive irritation below, and the general disturbance being less, it seemed that the moment for action had arrived. Amputation was the only resource; and that was felt to be doubtful, since the disease had extended so high as to preclude any other operation than a disarticulation. The patient was stimulated, etherized, and the arm removed at the shoulder-joint by a deltoid flap. Enough sound tissue was got to cover fairly, and that was all. No very large amount of blood was lost. Patient bore the operation well, and before being removed to bed, was given three grains of opium. A water-dressing was applied, and stimulants, opiates and food given, as often as they could be borne.

June 19th.—Aspect tolerable. Feels more comfortable since the operation than before. Pulse very feeble. Stump looks well. Continue stimulants, &c.

20th.—Stump continues to look well. Thin and serous discharge. No hæmorrhage. Constitutionally failing. Nausea and diarrhœa.

21st.—Stump the same. Otherwise worse. Pulse very feeble. Hiccough. Delirium. Died at 6, P.M., three days after the operation, and three weeks after the injury. There was no extension of gangrene, and the patient died of *shock*.

It may be fairly questioned whether very free incisions should not have been made when the phlegmonous inflammation came on. One patient, in another ward, had apparently been treated so in a different hospital, but he had saved his limb, at the expense of a tibia denuded over eight inches, forming a large exfoliation, with subsequent slow granulation, which was far from covered when I last saw him. The case narrated does not seem wholly like hospital gangrene. The ward contained 40 cases of wounds, and it did not extend. Only one other instance of gangrene occurred in 400 cases, in two months.

Case V.—G. Cook, 63d Penn., wounded at Fair Oaks, May 31st. Ball entered just above right elbow, shattering humerus, and made its exit transversely on the inner side of the arm; by the size of the wound of exit, probably a Minié ball. Patient had refused to submit to amputation, which was advised, on the field. Subsequently, strenuous efforts had been made to save the arm. About three weeks and a half after the injury he came under my care. He was then suppurating enormously, but the pus was laudable. There were large masses of fungous granulations in both wounds. The arm was helpless, and no attempt at union seemed to have taken place. A number of large and small splinters had been removed, and spontaneously discharged. The patient was young and robust, but the general health was just beginning to suffer from hectic. The arm was not inflamed.

June 25th.—An exploration was made, under chloroform. The humerus was found to be badly fractured, with many spiculæ, and was besides split upwards fully three inches, so that the finger lay in the medullary cavity, and the two fragments pointed inwards and outwards, with sharp, jagged ends. These pieces were firm and immovable. Below, the fracture was sharp, the condyles roughened as by caries, and the inner one broken off; and, as afterwards appeared, the fracture extended into the elbow-joint.

As there was no prospect of reparation, and an excision must include all the parts from the upper third of the arm to the tubercle of the radius, it was decided, after a consultation, to amputate. The arm was removed, by the circular operation, about three inches below the shoulder, on June 28th.

June 29th.—Doing well.

30th.—Very comfortable. No hæmorrhage.

July 1st.—Slight chills, otherwise well. Ordered quinine.

2d.—Chills quite bad, three times to-day. Nausea and vomiting. Sweats. Aspect bad, but stump looks well. Beef-tea and stimulants moderately. ℞. Calomel. gr. ss., et opium, gr. ss., every hour until easy, and vomiting relieved.

3d.—Looks badly. Complexion a little jaundiced. Occasional chills. Tongue brown and dry. Skin moist. Pulse small. Respiration hurried. Stump continues to look well. Stimulants.

4th.—Increase of all bad symptoms. Quite yellow. Respiration impeded. Sinking. At 11, A.M., copious, but not very rapid hæmorrhage from stump. Died in an hour.

It is to be remarked that in malarious regions, and in this hospital, where fever and ague is of daily occurrence, it is difficult to distinguish, in the beginning, between the chills of intermittent and those of suppuration. This death was ascribed to pyæmia. The following is more marked in some respects.

Case VI.—J. English, 52d Penn., wounded at Fair Oaks, May 31st. Ball entered upper third of left thigh, near outer edge of rectus; ball still in.

June 10th.—Wound probed, but no ball could be found. Pretty comfortable. Water-dressing.

11th and 12th.—Pain and fever. Poultices, purgative, low diet, opium.

13th.—Wound suppurating. Feels better.

14th.—The same.

15th.—Much distress. Febrile. Thigh painful and very tender; not swollen or inflamed. No chills or sweats. Great jactitation. A little jaundiced. Drowsy. Ordered compound cathartic pill.

16th.—Thigh easier. Jaundice increased. Aspect much distressed. Pulse small and frequent. Wound the same.

17th.—Intense jaundice. Dyspnœa. Looks moribund. Wound unchanged. Died at 10, P.M.

At the autopsy it was found that the ball passed down below the ramus of the ischium, laying bare, but not fracturing the bone, and was lost in the soft parts. There was considerable disorganization, but no pus. The liver was intensely congested, but presented no other change. The gall-bladder and ducts were normal. Nothing else abnormal was found in the abdominal or thoracic cavities. No dépôts of pus. The head and the muscular structures were not examined. There was no swelling of the limb, like phlebitis, during the sickness, nor any marked difficulty of micturition. The bowels were sluggish, and attempts were made to move them and arouse the liver by mercurials and saline cathartics.

If this case was pyæmia, it was without marked chills or sweats. Such a form of pyæmia is described as coming on insidiously, accompanied by jaundice. This seems the more probable explanation, from several other cases of death of a low, asthenic form, with jaundice, occurring in the hospital, but not under my immediate care.

These cases were, some of them, complicated with secondary hæmorrhage, more or less grave.

CASE VII.—J. McLaughlin, 1st Penn. On June 11th he was brought into my ward. He was deaf, stupid, with difficulty comprehending or answering questions, febrile, bleeding from the nose and throat, and with bloody stools. No history of the case. He was first given stimulants.

June 12th.—Bleeding continues; body and extremities sprinkled with blue, extravasated spots, like huckleberries. Ordered beef-tea, lemons, and Tr. ferri muriat., ʒ ss. every four hours.

June 13th.—Worse. Bleeding from ears. Spots of extravasation copious and increasing. The abdomen so closely covered that they resemble deep-blue striæ, in semi-parallel lines. Nose, mouth and tongue constantly bloody. A little diarrhœa, tinged always with blood. Pulse small, frequent and irritable. Very stupid and deaf. Aspect bad. No pain. No soreness. No complaint of anything. Continue good diet. Three to four lemons daily. Iron, ʒ ss., every hour.

June 14th.—A little better. Less bleeding. More sensible. Pulse 88. In the afternoon, copious hæmatemesis.

June 15th.—Looks very badly. Dull, deaf, and in a wandering delirium. No more bleeding. Continue iron, and add wine.

June 16th.—The same. Is so tired and disgusted with the Tr. ferri muriat., that the following is substituted. ℞. Ferri sulphat., ʒ ss.; acid sulphuric aromat., ℥ i.; aquæ, ℥ ii. M. Tea-spoonful every hour—equal to four grains of ferri sulph. The lemons were omitted, and the wine changed to egg nogg.

17th and 18th.—A little better.

19th.—Still better; medicine every two hours.

21st and 22d.—Improving. No bleeding for several days. Purpuric spots brighter, and less livid. More intelligent. Less deaf. Aspect better. Continue iron every two hours.

24th.—Much improved. Spots fading. Medicine every four hours.

July 1st.—Everyway much better. Spots about gone. Iron, three times a day.

27th.—Walking about, convalescent.

It is not, perhaps, probable that the immense quantities of iron (amounting to ℥ iss. of the tinct. ferri muriatis, or over ℈ iv. of the sulphate of iron, in twenty-four hours), given in this case, were all absorbed. They produced no effect, save that improvement steadily followed their administration. No irritation of pulse, head, stomach or bowels, followed these doses. When first seen, the case seemed pretty desperate, and the remedy was given in unusual amount, from a hope that it might benefit, and could do no harm. This was considered as a case of purpura hæmorrhagica, complicated, or not, with fever; and it is introduced here, among surgical cases, as typical of a certain hæmorrhagic tendency which seemed to prevail in very many of the cases under my observation. A poor, thin, and probably scorbutic state of the blood was noticeable in the majority of wounded men. The aspect of some was chlorotic. Robust health, suddenly stricken down by a wound, was an exceptional appearance. A lingering form of sub-acute rheumatism was very common. Diarrhœa, or a tendency to it, easily induced by fresh meat and broths, was also prevalent. Suppuration was tardy and not vigorous. There was no strong reaction after injury. A full, bounding pulse was a rare complication. The aspect was that of fatigue. The spirits were cheerful, but that was partly owing to the unusual comforts of a hospital—a bed, clean linen, quiet, and regular food. Convalescence was slow and lingering—the patient not regaining a rosy color, or the look of firm health, as often here, as I have seen in northern and sea-side hospitals.

Secondary hæmorrhage was pretty frequent, and sometimes fatal. It rarely failed to recur, and carry off the patient, where it had been checked. All the cases of ligature of a great vessel to check hæmorrhage, died; of these, there were two of the subclavian, one carotid, and one axillary. Three out of the four showed a tendency to bleed from other parts than the original wound—as from small vessels, and, in one instance, from the bowels.

The tendency of the wounded to jaundice, and an obscure form of pyæmia, has been already spoken of. It was so frequent as to be very marked and noticeable. All the patients were liable to intermittent, and a considerable number suffered from it while in the hospital. This, of course, variously complicated their previous state. One case of bilious remittent occurred in a patient who had been in the hospital a month. He was wounded in the foot, and I had removed portions of the third, fourth and fifth metatarsal bones, three weeks after the injury, and he was going on well, when seized with the fever, which speedily proved fatal. Yet, with the exception of the tendency to diseases of a malarious origin, there was no epidemic in the Judiciary Hospital. There was no tetanus, and the pyæmia was sporadic. The gangrene did not extend, and there were very few cases of erysipelas. The number of patients averaged five hundred.

The construction of the hospital was good. It was of wood—one story high, and built in ten pavilions. The pavilions had an upper and a lower row of windows all round, opening into the ward: and thus a very admirable top-ventilation was secured. There was no ceiling, and each pavilion held from thirty to forty beds. As far as any hospital smell was concerned, the air of these wards was the purest of any I ever visited. The nursing was pretty good; the food, abundant in amount, and of excellent quality. The kitchen and the cooking were the weak spots of the establishment, and unavoidably so. Yet the sick did not want for luxuries; and by the commutation of their rations, a hospital fund, sometimes of one thousand dollars a month, was expended in extras for their comfort.

Five hundred loaves of soft bread, thirty dozen of eggs, a keg of butter, and many gallons of milk, were daily consumed. Government furnished medicines and stimulants without stint; and the Sanitary Commission made up many lesser deficiencies.

Obviously, therefore, the bad sanitary state of the patients, their tendency to various morbid complications, indicating debility and impure and feeble blood, could not depend on the surroundings of their hospital life. The cause is to be found in their mode of living and enduring in camp, and on the march. All the cases here alluded to came from the Peninsula, after the siege of Yorktown, and the sojourn in the pestilent swamps of the Chicahominy. Climate, fatigue, exposure, want of sleep, and, above all, too little and poorly prepared food, and food of a bad quality, with no margin of extras to revive the appetite or enrich the blood—all this supervening on habits of ease and plenty, and continuing to act on yielding constitutions for months, had gradually undermined the strength, and led to that state of prostration described above. Such a condition of things is perhaps inseparable from war. Those interested may find descriptions of an exactly similar state of health, and its constitutional sequences under injury and wounds, in Hennen and Guthrie, and in McLeod's details of the hardships of the Crimean campaign. All military writers are unanimous in like descriptions. It is not surprising, among such cases, that the mortality should be large. The operations done at this hospital were necessarily all secondary: of these, about 50 per cent. died. All the cases of excision of joints, which fell under my observation, were fatal. Excisions of ends of bones, not involving an articulation, were more successful.

Although it is often said that limbs are needlessly sacrificed to the knife on the field, it has seemed to me that there was another large class of cases where life was ultimately lost through too great conservatism. When we consider the many perils to which the long recovery from a shattered limb, or an excision, exposes the private soldier, of bad transportation, hospital diseases and malaria—when he cannot be sent home—and all these supervening on a feeble state of the blood, such as has been described, we may well hesitate to submit him to such risks, which an amputation will, to a considerable extent, do away with.

There are only two other points which demand a brief allusion.

Mercury seems to exercise a very good effect on some ill-conditioned wounds in this latitude, and also to be required in those cases tending to congestion of the portal circle and jaundice, which were frequent in this hospital; and, in short, to be really more useful and more needed than we think it in Boston.

Chloroform and ether were both furnished by government, and were used indiscriminately. In some fifteen or twenty cases of the administration of chloroform, not the slightest ill effects resulted.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, OCTOBER 30, 1862.

Inspection of the U. S. Military Hospitals by the Sanitary Commission.—This inspection, by a body of physicians and surgeons from civil life, to be kept up, week after week, until May next, meets with general approval in the community. No measure could have been advised better calculated to quiet the public mind on the all-important subject of the care of those dear to them, whose patriotism has made them the victims of the casualties or the diseases which this wretched war has brought upon them. There have been so many stories of mismanagement, neglect and cruelty in the newspapers, that it was high time these evils were corrected, if they really existed, or that the popular mind should be authoritatively disabused of false impressions which were causing an untold amount of wretchedness to sympathizing hearts at home. We have been strongly inclined to the opinion that much has been said in newspaper articles on this subject, which, sifted down, would prove to be the grossest exaggeration. The proposed inspection will clear up all uncertainty about it. And we hail as strong presumptive evidence that there has been a great over-statement, to say the least, of any defects of hospital administration, the fact, which we learn on the best authority, that the gentlemen in charge of government hospitals receive with the most cordial courtesy the visitors of the Commission, showing the greatest alacrity to facilitate their examination, and manifesting a desire in every way to carry out the plan proposed. This is a good augury that such evils as may exist are not at any rate those of wilful neglect and cruelty.

The inspectors, in making their visits, are furnished by the Surgeon-General of the United States Army with a document enjoining upon all medical officers to give them free admission into all hospitals, and to render them every practicable facility and assistance in the pursuit of their investigations. That the examination they are expected to make is of the most thorough and searching character, may be learned from the details in the following extract from the paper which will be placed in the hands of each inspector on commencing his tour of duty, which has been kindly furnished us by Dr. Clark, Inspector-in-Chief.

> In the performance of your duty it is the desire of the Commission that you should cause as little inconvenience as possible to the medical officers of the hospitals you may visit, extending to them the deference and courtesy proper to their responsible positions; and the Commission is confident that, as members of the same profession, with the same high objects in view, you will be welcomed by them with equal courtesy, and every facility afforded you of obtaining the information you seek. It is proper to state to you that your visit is made by invitation of the proper authorities, and at the express desire of the Surgeon-General of the Army, to whom a digest of your report will be presented. If you should encounter any serious obstruction in the performance of your duty, please report the facts fully and promptly to Mr. Olmsted, at Washington, and proceed without delay to the next hospital in your circuit.
>
> It is desired that your report should embrace your observations on the points, and answers to the questions which follow—stated under the same heads, and, as nearly as possible, in the same order:—
>
> Locality of the hospital; character of its site in regard to healthfulness; cha-

racter of soil; prevailing winds; proximity of other buildings—of railroads—of navigable river; elevation; style of building.

Surgeon in charge; name; rank.

Number of assistant medical officers; if employed by contract by Government; if so, if subjected to examination before employment, and by whom.

Number of hospital stewards, ward-masters, male and female nurses; estimate of character and efficiency.

Number of patients in hospital; examine "Morning Report," and judge if books are carefully and accurately kept.

General character and degree of gravity of cases before treatment: proportion of medical and surgical cases; proportion of convalescents; are they promptly returned to duty, or discharged the service?

Estimate the degree of medical and surgical skill of medical officers, and the humanity and kindness evinced by them, and also by the nurses.

At what hours are the regular visits made to the sick, and by what officers of the hospital?

How often does the surgeon in charge visit the wards?

Rate of mortality; success of surgical operations; is there a dead-house? Are *post-mortem* examinations practised? Are pathological specimens preserved? Are burials conducted with propriety? Are means taken to mark graves, so that they can be recognized by friends? Are chaplains, or proper religious advisers, at all times accessible to the sick?

Diet: is it sufficient in quantity, and good in quality? suited to conditions of patients? well cooked? served warm? sufficiently varied? Are the coffee and tea good? How often do the patients get fresh beef? Is the beef-tea properly made and freely provided?

Is the hospital fund sufficient to secure an ample supply of milk, butter, eggs, chickens, ale, porter, and other delicacies and necessaries for the sick not included in the supply tables of the commissary and hospital departments?

[Government regulations allow the very ample ration issued by the commissary department to be drawn at its commuted value in money, by the surgeon in charge of a hospital, for the sick soldiers under his care, and this constitutes the hospital fund, with which all extra necessaries for the sick are to be purchased under his direction. The amount of this fund, with proper management, is amply sufficient for the purpose for which it is designed. See Revised Army Regulations for Medical Department.]

Is the hospital fund allowed to accumulate while the sick are in want of anything?

Are the stimulants employed of good quality and judiciously administered?

Police: Is strict cleanliness observed in the wards—in their floors; in bedsteads and bedding; in clothing, in vessels used for food; spittoons; bed-pans; sinks, and water-closets? In the kitchen and cooking utensils? In the apothecary shop?

Are the knapsacks and property of the soldiers properly cared for by the ward-masters?

Is the water supply ample? for washing, bathing, water-closets, and in case of fire? Is its quality good?

Are the provisions against fire complete? Are there fire-escapes by means of windows in each ward cut down to the floor, or other sufficient means of egress?

[Many hospitals, being frame buildings, are particularly liable to the danger of fire, and the helplessness of the sick renders it especially necessary that ample provision should be made in every possible way, by fire engines, drilling the attendants, supply of buckets, care in use of lights and fires, ether, alcohol, camphene, kerosene, &c. &c., to secure their safety.]

What means are employed for lighting and heating the wards?

Is the drainage completely provided for? Where tents are occupied by the sick, are they provided with floors with a free circulation of air beneath them, and with provision against collection of rubbish? Are they secure against rain, and are trenches dug when necessary to carry it off?

Are the grounds around the hospital buildings and tents kept clean?

Is the supply of fresh air ample, with all possible provision for ventilation?

What is the average air-space allowed for each patient?

[This includes the all-important question of crowding the sick—a most common and fatal error. It is well to bear in mind that every sick man has a right to 1200 cubic feet of air as a minimum estimate. By multiplying the length, breadth and height of each ward, and dividing by the number of beds it contains, the answer to the question is obtained.]

Have continued fever or dysentery assumed a contagious character?

Have erysipelas, hospital gangrene, or pyæmia prevailed?

In such event, have the patients been promptly scattered?

Are deodorizing agents judiciously employed?

[In the absence of chlorides of lime and soda, and the more common disinfectants, gypsum or plaster of Paris, sulphate of iron and coal-tar answer this purpose admirably.]

Are screens provided for isolating dying patients?

Is the supply of laundresses and means of washing clothing and bedding sufficient?

Is there a sufficient supply of mattrasses, bed-sacks, straw, blankets, sheets, and mosquito-bars?

Is the straw used for bedding changed and burned at proper intervals?

Is there a sufficient provision of clothing, shirts, drawers, socks and slippers for the patients?

[By recent law of Congress, enforced by the Secretary of War upon the Quartermaster's Department, soldiers who have lost their clothing through the casualties of war, are entitled to an additional issue, without deduction from their pay. By another appropriation by Congress, provision has been made for obtaining, through the medical purveyors, clothing for the sick in hospitals. When from unavoidable deficiency said clothing for the sick cannot be obtained through the proper channels, the Sanitary Commission will afford the necessary supply.]

Are invalided soldiers, discharged on certificates of disability, supplied with full information as to their rights under the pension law? and of the provision made by Government for furnishing those who are mutilated with artificial limbs?

Are patients kept closely cropped, and proper precautions taken against vermin?

Is there any lack of reading matter for convalescents? of games? of tobacco?

In addition to the foregoing, you are invited to furnish any further suggestions or details you may deem worthy of record.

In any case of doubt as to the nature of your duty, you will please apply to the General Secretary, at the Central Office, Washington, D. C.

It is desirable that you should render yourself familiar with the Revised Army Regulations, as far as they concern the Medical Department, and also with all circulars and orders emanating from the Surgeon-General's office.

By order of the Executive Committee,
W. H. Van Buren, M.D.
C. R. Agnew, M.D.
Wolcott Gibbs, M.D.

Examination of Recruits.—The importance of a rigid examination of recruits cannot be too much enforced. It has been often insisted on by military and medical authorities, since the commencement of the rebellion, but the lesson needs to be inculcated over and over again, to make the impression it should on those to whom the responsible duty of examination is confided. Without doubt, this has been much more thorough of late, in raising the troops of the new levy, than heretofore, but still there is room for improvement. The large bounties offered are a strong temptation to men with some physical infirmity to conceal it for the purpose of securing the prize. It matters little to such a man whether the regimental surgeon subsequently discovers the defect, and dismisses him from the service; this is just what he wants, in most instances, and gives him the opportunity for getting another bounty somewhere else. In fact, there is, undoubtedly, a set of sharpers, who are making goodly sums by this game, and it is important examining surgeons should be on the look-out for them; the examination cannot be too rigid and careful. Instances of carelessness or unfaithfulness in the performance of this duty should deprive the examiner at once of his office, for it seems too much like collusion between the parties to be tolerated for a moment. Nor is this a merely hypothetical case. Two instances have lately come under our observation, where men were passed as sound by an examining surgeon, and permitted to enlist, when they had been repeatedly rejected by other more exact or scrupulous examiners. In one of these cases the man had but one eye, the other being hopelessly blind from closure of the pupil with adhesion to the cornea and large opacity of the latter. This man was at once rejected by the examining surgeon to whom he applied, although a strong pressure was brought to bear upon him by a circle of friends who proposed to enlist with him, and whose enlistment was conditional upon his. Finding his efforts ineffectual, he departed to try some other examiner. The second instance was of a man who had the most defective set of teeth conceivable in a person of middle age. His mouth was shaded by a heavy beard which concealed the ruin within. Of his upper incisors, all that remained was the left perpendicular half of one of them, the rest being broken off even with the gum. Four discolored and fragmentary stumps, irregularly distributed, were all that remained in the upper jaw; and half a dozen below, in as bad a condition as possible, and distributed as unevenly as those in the upper jaw, made up the sum of the masticatory apparatus of this individual, whose army fare would be hard tack and tough corned beef. Of course it was out of the question to pass such a man, and he submitted to his fate without a murmur, admitting that this was not the first rebuff of the kind that he had met with. The conclusion of the history is, that both of these men were in the ranks of the company which they originally attempted to enter, when it left the city, having passed successfully an examination by another surgeon. Each of them probably received his bounty of two hundred dollars; and one of the first acts of the regimental surgeon, when he shall have been appointed, will undoubtedly be to discharge them both as unfit. The bounty will comfort them in their disappointment, and they will be free to try the same game again, elsewhere. Such facts need no comment. Again we say examiners should be unscrupulously rigid: in no other way can such frauds be prevented.

The Medical and Surgical Reporter.—We miss, of late, the former regular visits of our Philadelphia contemporary. The numbers at times come to hand more than a month behind their date, and we find several numbers wanting to complete the series up to the date of the last one received. The diminution in the number of subscribers, which publishers of medical journals have experienced, more perhaps than those of any other periodicals, in consequence of the war, is given as an excuse for this irregularity on the part of the *Reporter*, and is also the cause, doubtless, of a reduction in the number of pages in its weekly issues. We of the medical press are indeed severely tried by the condition of the country, and nothing but prompt remittances on the part of subscribers allows any medical periodical to be published without other support than its own income.

Three cases of acute pulmonary disease in children, treated by Dr. Handfield Jones with tincture of veratrum viride, are reported in the London *Lancet*. Dr. Jones made the following clinical remarks :—

"The foregoing cases certainly corroborate the very favorable testimony of our American brethren as to the virtues of veratrum viride. I think it is well worthy of more extensive trial by the profession, and I am much inclined to hope that it will prove a substantial addition to our means of controlling inflammatory disease. As far as I can judge, it would have gone very hard with both cases (I. and II.), but for the veratrum viride. Case I. would, I believe, have died; and Case II. would at best have had a slow convalescence. This case was the first one in which I tried the drug, and I was quite prepared to find at the next visit a considerable extent of both lungs hepatized, which with any other remedy I verily believe would have happened. Certainly veratrum viride is no placebo, and will only find favor with the partizans of active interference. Those who have witnessed its action will, I think, find it hard to believe that acute disease is never curable by depressing measures, or that expectant practice is always advisable. It is evidently a remedy very much of the same kind as digitalis, which has been employed on the continent lately in the same way, and apparently with very good results. (*Vide* Hirtz's paper in the *Bull. de Thérap.*, February and March, 1862.) The *modus operandi* of both is clearly to depress the circulation, which digitalis at any rate seems to do by hyper-stimulation of the vaso-motor nerves. The cold face and hands and slow pulse of patients under its full action, are just such phenomena as result from stimulation of the vagi and sympathetic nerves."

Chronic Diarrhœa at Camp Douglass.—A correspondent of the *Chicago Medical Journal*, who has had charge of the Confederate prisoners at Camp Douglass, near Chicago, thus writes respecting the prevalence of chronic diarrhœa among them :—

"One of the first questions asked a patient, 'How long have you been sick?' generally gives the answer, 'ever since I was taken prisoner.' 'What is the matter?' 'Diarrhœa.' There is nothing which so effectually takes the self-satisfaction out of a physician as treating chronic diarrhœa. Add to its usual obstinacy the necessary lack of suitable food, and the stolid indifference of men accustomed to sufferings, and our diarrhœas become the rightful recipients of their usual appellation—the camp curse. The prevalence of diarrhœas among the rebel prisoners is absolutely astonishing. In one of my wards, I one day found that nineteen out of twenty then in the ward had diarrhœa. I have never tested it before or since, but presume it would vary but little among the sick in the hospitals. As to its treatment, my own experience gives me little to offer in the chronic cases, while the acute ones yield readily to opiates combined with astringents. Occasionally I have used mercurials with very marked good effect, and also in others quinine has been productive of excellent results. I have used the following in some of my cases with much satisfaction :—R. Pulv. opii, ℈i.; pulv. alum., ʒij. M. Make twenty powders; give one every two or four hours until bowels check.

"In the chronic cases, there seemed but little encouragement to close the portals of their exit. No wonder surgeons kept from active field service, clamor to quit the business, for I think if anything could effectually dry up the last spark of a man's ambition, hope and resolution, it would be to dole out daily remedies for chronic diarrhœa. The incessant 'no better' sounds mockery to your science. The long list of specifics fade out quietly before your trials, but like few reliable institutions, they still run themselves. I have tried nothing that I could add to, or place in the specific column. I think if I ventured to believe anything had done any good, it was the formula given above. In some cases, I combined tincture of cantharides with my ordinary diarrhœa formula, and it seemed to do good for a while, but soon fell into the useless brigade. I used iron to no purpose.

"The degree of emaciation is incredible. In many it would seem to be no difficult matter to teach osteology, and they turn the skeleton for you.

"In most of the cases, towards their termination, ulceration of the lower section of the cornea takes place, and it has always in this, as well as other diseases, preluded a fatal termination. It seems to be the point in the nutrient barometer, to which, if nature sink, there is no remedy.

"These cases, notwithstanding the irritability of the bowels, must not be deprived of a liberal supply of hearty food. In many cases, articles which would seem entirely inconsistent with the disease, were tolerated with wonderful comfort—such as meats, pickles, vegetables, &c. The denial of a substantial and free supply of food, I am confident, is injurious in the confirmed cases. Many cases were examined *post mortem* without eliciting any peculiarity upon which a basis of treatment could be founded."

DENTISTS AT RIO JANEIRO.—Dr. Joseph F. Vegas writes to the Philadelphia *Dental Cosmos* as follows, under date of June 25, 1862 :—

"The number of dentists in Rio is about twenty, and most of them are graduates of medicine. American dentists are considered the best, and there are three or four Americans doing very well. One of them in particular, Dr Van Tuyl, who has been established in Rio for about fifteen years, enjoys quite a reputation, and has a large practice.

"Dr. Fogg is also doing well: he is the successor of Dr. Whittlemire, one of the best dentists that ever came to Brazil.

"I called upon several of them, and was kindly received by all—to Dr. Van Tuyl, particularly, I am highly indebted for many attentions during my sojourn in the city of Rio.

"The medical college of Rio has, within the last few years, made arrangements to instruct and graduate dentists, but in a very imperfect manner. Dr. Diniz was the first graduate, in 1859, and since then they have graduated three or four every year, who could hardly have been prepared to enter into the practice of dentistry with the scanty instruction received at that institution, where none of the professors are dentists. There are, consequently, no clinics, and as to mechanical dentistry, not a word is taught."

ARTIFICIAL LIMBS FOR SOLDIERS.—The Commission appointed by the Surgeon-General to devise a method of expending the fund appropriated by Congress for the purchase of wooden limbs for soldiers, recently held a meeting in this city. It consisted of the following eminent surgeons: Drs. Van Buren, Gross, J. M. Warren, and Satterlee. After examining the subject, they resolved to allow the patient fifty dollars for a lower, and twenty-five dollars for an upper extremity. The following artificial limb manufacturers were selected to supply limbs, viz., Dr. E. D. Hudson, New York, Dr. Douglas Bly and Mr. Selpho, New York, Mr. Douglass, Springfield, Mass., and Mr. Palmer, Philadelphia. The patient is at liberty to apply to either of these manufacturers, but if the price which they demand for a given limb exceeds the amount allowed, the patient, or his friends, must make up the deficiency. This arrangement is very judicious, and will lead to a proper use of the fund. Every maimed soldier will be able to obtain an artificial limb of such quality as he chooses.—*American Med. Times.*

LECTURES AT THE MASSACHUSETTS MEDICAL COLLEGE.—The attention of readers is called to the advertisement respecting the Introductory Lecture by Prof. Bigelow at the College on Wednesday next. The winter course, then to be commenced, promises to be in every respect equal to those of former years, and is worthy the attention of students in all parts of the country. The numbers in attendance at other schools which have opened this season are said to be large, and we anticipate an increased number at the lectures in this city.

DR. P. A. O'CONNELL, Surgeon of the 28th Massachusetts Regiment, has been appointed by General Willcox Medical Director of the Army Corps under his command. Dr. O'Connell writes that he will be able to enforce General McClellan's order relative to the Ambulance Corps in his Division of the Army, as he will receive from General Willcox any assistance he may require.

WE have received from Dr. George H. Gay, chairman of the delegation of surgeons and physicians who went to Washington on the memorable Sunday, August 31st, in answer to a call from the Secretary of War, his interesting report to the Surgeon-General of Massachusetts, just published. Want of space compels us to defer a full notice of it until next week.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, OCTOBER 25th, 1862.

DEATHS.

	Males.	*Females*	*Total.*
Deaths during the week,	40	27	67
Average Mortality of the corresponding weeks of the ten years, 1851–1861,	33.3	32.9	66.2
Average corrected to increased population,	..	..	72.99
Deaths of persons above 90,	..	0	0

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
15	2	3	2	1	0	1	3	2

DIED,—In New Orleans, Sept. 22d, of apoplexy, Dr. Edward Jenner Coxe, in the 60th year of his age, Dr. C. was the son of Dr. John Redman Coxe, formerly a professor in the University of Pennsylvania, and now living—the oldest alumnus of the medical department of that school. The son has been a resident in New Orleans for the last twenty-five years, and during much of that time was well known to the readers of this Journal as a frequent contributor to its pages.—Killed, in a skirmish near Ashby's Gap, Va., on the 24th ult., Dr. S. R. Perkins, late of Castleton, Vt., and at the time of his death Captain of a company in the Vermont Cavalry Regiment.

DEATHS IN BOSTON for the week ending Saturday noon, October 25th, 67. Males, 40—Females, 27. Accident, 2—apoplexy, 2—inflammation of the bowels, 1—disease of the brain, 2—bronchitis, 1—cancer, 1—cholera infantum, 2—consumption, 15—convulsions, 1—croup, 3—diarrhœa, 2—diphtheria, 2—dropsy, 3—dropsy of the brain, 1—dysentery, 1—scarlet fever, 2—typhoid fever, 3—gangrene, 2—disease of the heart, 3—hernia, 1—intemperance, 1—inflammation of the lungs, 1—marasmus, 1—old age, 1—paralysis, 2—premature birth, 3—syphilis, 2—teething, 1—unknown, 5.

Under 5 years of age, 19—between 5 and 20 years, 6—between 20 and 40 years, 25—between 40 and 60 years, 12—above 60 years, 5. Born in the United States, 41—Ireland, 18—other places, 8.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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MEDICAL AND SURGICAL CASES AT PORT ROYAL, S. C.

[Communicated for the Boston Medical and Surgical Journal.]

U. S. General Hospital, Hilton's Head,
Port Royal, S. C., Oct. 15th, 1862.

Mr. Editor.—Assuming that your readers are not altogether destitute of interest with respect to what is passing in this out-of-the-way and somewhat neglected station, I propose to send you a brief history of this hospital, and of the course which has been pursued here in the treatment of some of the most important medical and surgical cases which have presented themselves.

This hospital was first opened for the reception of patients on the first day of April, 1862. About three hundred and fifty patients can be accommodated with perfect convenience, and fifty more can be admitted without being over-crowded. The building itself is very favorably situated for health. The waves of the Port Royal harbor constantly roll up within a few rods of its front, and the brisk sea breeze, which nearly always blows from off the bay, renders the air pure and salubrious.

The hospital is erected in the form of a hollow square, each side of which measures 325 feet. It is built on piles, elevated about three and a half feet from the ground. The dispensary and dining room are in the main building. The kitchen, wash house, &c., are detached in buildings erected for the purpose.

Under ordinary circumstances, the patients are brought in from the hospitals of the regiments, some of which lie encamped within, and some without, the fortifications around Hilton's Head, but in some instances from other places. After the battle of James Island, on the 16th day of June last, a large number of the sick and wounded from that place were brought to this hospital. Those brought from the regiments referred to are chiefly cases of various kinds of disease, or of gun-shot wounds from the careless handling of fire-arms. Fractures from accidents also occasionally take place, particularly of the long bones, without complications. No epidemic has existed since the opening of the hospital for the reception of patients. The prevailing diseases, therefore, have been such as are incident to the climate and the season of the year.

FEVERS.

Intermittent Fevers.—The cases admitted into the hospital have not been numerous, and have presented no aggravated features. After a proper attention to the stomach and bowels, they have generally yielded speedily to the exhibition of quinine, in doses of from three to five grains, repeated more or less frequently, and combined with alcoholic stimulants or not, according to the previous habits or constitution of the patient. In a few cases the disease has assumed a congestive form, when quinine was administered in much larger doses.

Continued Fevers.—Cases of continued or bilious fever have very seldom been admitted into this hospital, till after they have passed their first stage. The first treatment has uniformly been at the regimental hospitals. Frequently, when admitted, the patient has been much exhausted, the tongue heavily coated and bilious, with a tendency to looseness of the bowels. In some cases the bowels have been constipated. After a proper attention to the regulation of the stomach and bowels, nearly all this class of cases have done well by a free exhibition of alcoholic and other stimulants, with quinine in moderate doses, though a few have had a protracted convalescence. A common prescription for such cases is: ℞. Spts. vin. gal., f ℥ iv.; quin. sulph., grs. xii. M. To be taken in the course of twenty-four hours. A speedy recovery often takes place under this treatment.

Typhoid Fevers.—As in cases of bilious fever, the first stage of typhoid fever is generally passed in the regimental hospitals. When admitted into the General Hospital, the patient has a feeble pulse, more or less tenderness of the epigastrium and of the right iliac region, vacant countenance, dull hearing; tongue black and heavily loaded, often dry, hard and cracked, with the other symptoms usually presented in that disease. There is here a general tendency to looseness of the bowels, though in some instances the opposite condition has existed. After a careful attention to the condition of the primæ viæ, the stimulating system of treatment is steadily and perseveringly pursued. The exhibition of ol. terebinth., gtt. v. to x., ter die, and spts. vin. gal., f ℥ iv. to f ℥ viij. in twenty-four hours, is continued without intermission from day to day. Under this treatment, in a great majority of cases, in a few days, the tongue becomes moist and soft, the black coating begins to disappear, the pulse becomes fuller and stronger, the countenance loses its peculiar look of perplexity, intelligence begins to resume her throne, and the patient goes steadily onward to convalescence and a return to health.

DISEASES OF THE BOWELS.

Dysentery.—Compared with other diseases, very few cases of dysentery have been admitted into the hospital, and I do not learn that it has prevailed to any great extent amongst the troops in this neighborhood. The disease here has presented no remarkable features, and has yielded readily to the usual remedies. It seldom becomes chronic, but it has not unfrequently degenerated into chronic diarrhœa, and then presents all the difficulties in the treatment of that disease when primary in its inception, and something more.

Diarrhœa.—As is well understood, this disease is one of the most common of warm climates, and Hilton's Head and its neighborhood is not an exception in this particular. Any irregularity in diet, great fatigue or undue exposure, is liable to produce an attack. In the acute form, it does not materially differ from the same disease in more northern climates, except that the attacks are more violent, and of course more difficult to control. Generally, however, it cannot be considered very difficult to subdue by the usual remedies, but when improper diet or undue exposure is persisted in, it is very liable to assume the chronic form, and the disease then presents a far more formidable character.

Chronic Diarrhœa.—Of all the classes of diseases treated in this hospital, chronic diarrhœa is among the most troublesome and the least amenable to the control of remedies. Opium, lead, tannin, creasote, catechu, camphor, with their different preparations, whether given separately or combined, together with the whole catalogue of sedatives and astringents, have in many instances been equally powerless in arresting the disease. Not unfrequently, when it appeared to be arrested and the patient seemed to be in a fair way of recovery, imprudence in diet has, in a day, destroyed the care and labor of weeks; the disease has returned with increased violence, and in a short time has been followed by a fatal result. The tongue will look clean and have a healthy appearance, except, perhaps, a little too much of redness, and the eye bright, while the disease goes steadily on to reduce the strength of the patient, till in a shorter or longer period it proceeds to a fatal termination. Several months are sometimes consumed in this wasting process. Nutriments, even of the mildest kind, will pass through the bowels with little delay, and apparently without being assimilated. According to our experience, brandy punch, made with one part of brandy and two parts of boiled milk, and given to the extent of from f ʒ iv. to f ʒ viij. every twenty-four hours, succeeds best in sustaining the strength and affording nourishment to the system. When thoroughly established, however, a case of chronic diarrhœa is almost incurable in this climate, and a timely return to some healthy location at the North affords the only hope of a permanent restoration to health, though that does not always prove successful.

RESPIRATORY ORGANS.

Diseases of the respiratory organs originating in this climate have seldom been met with. Slight catarrhal affections have readily yielded to mild remedies, and claim no particular notice. Cases of phthisis, however, of long standing, have occurred, generally in old soldiers, broken down by drink and dissipation, who ought never to have been admitted into the army. In these cases the disease has run much the same course and terminated in the same way as in more northern latitudes.

DISEASES OF THE HEART.

Hypertrophy and dilatation of the heart occur frequently, and in some instances aneurism of the aorta. They have occurred chiefly in very young men, or men of feeble constitution, tasked probably beyond their strength. The history which most of them give of their symptoms is, that they came on whilst engaged in practising the *double quick*. Under the influence of digitalis, veratria, rest and mild diet, most of them have been partially relieved, but some of this class of patients have remained for several months in the hospital, without any prospect of being able to rejoin their regiments.

RHEUMATISM.

Rheumatic affections in a military hospital will always be found in considerable numbers. They are, in this hospital, nearly all chronic cases, occurring in individuals who had been affected with that disease before they entered the army, and who ought never to have been permitted to do so. Whoever enlisted them, committed a gross fraud upon the public. Many of them in a year have not performed a month of service. This disease has been presented here in every variety of its forms; the feet, the hands, the knees, the shoulders, the back, the hips, and every other possible location, in some one or other of its subjects. To see the different manœuvres they make to contrive to set themselves in motion, would be ludicrous if it were not painful. As you pass through the wards, one old fellow with a sciatica will try to rise, with one hand on his hip and a cane in the other. Approaching the next bed, another, with both knees stiff, will be found with a cane in each hand. The next you meet will perhaps have no cane, but he will have both hands on his knees. It is well known that a simulated rheumatism is one of the most popular dodges amongst the old soldiers to escape duty, and sometimes to obtain a discharge, and there is reason to believe that the deception is sometimes so successfully carried on as to accomplish the object. These cases frequently resist all kinds of treatment. Iodide of potassium, Dover's powder, guaiacum, cod-liver oil, colchicum, turpentine internally, and cupping, blistering, and liniments externally, are often attended with little or no benefit, and a great many of them have to be abandoned as hopeless of effecting a cure.

SURGERY.

Fractures.—It has been already stated that the greater part of the medical cases had been brought to this hospital from the regiments encamped within, or immediately without, the fortifications around Hilton's Head. Most of the surgical cases from the same locality have been fractures without complications. None of these accidents have been very severe or attended by circumstances which require particular observation. They have mostly occurred amongst persons connected with, rather than directly engaged in, the military service. They have been treated on ordinary principles, and by the usual apparatus, and have all done well.

Wounds.—After the battle on James Island, on the 16th day of June last, a considerable number of the wounded in that engagement were brought to this hospital. The wounds, as might been expected, were very various in their character. Some were flesh wounds only. In others, the bones were shattered. Some were wounded in the head, some in the body, some in the upper and some in the lower extremity.

Flesh Wounds.—The expression, "only a flesh wound," used to imply that the wound was of little consequence, and that the subject of it had received little present or prospective injury. But experience has shown that even a flesh wound, inflicted by a Minié ball, is by no means to be despised. When a Minié ball passes through a thick, fleshy part, such as the thigh or the calf of the leg, it makes a large perforation, which heals slowly, and inflicts an injury of such a character as will, in a great majority of instances, prevent the limb from ever regaining its entire usefulness. The cases of this kind which have been admitted into this hospital have been treated on the ordinary principles, and with as much skill and care in all probability as they would have received elsewhere, but the truth of the above remark is too painfully exemplified by several cases of that kind still remaining in the hospital ever since the battle of James Island.

Wounds implicating the Bones.—If the effects of Minié balls are so serious when merely passing through the soft parts, they are still more disastrous when they touch the bones. It may be truly said that a Minié ball never touches one of the long bones without shattering it into several pieces. The bones of the thigh, the leg and the arm, when struck by one of these missiles, are, of course, perfectly comminuted and splintered. When passing directly through, scarcely less than three inches of bone is injured, and sometimes more, besides the severe shock inflicted on the system. Amputation, or at least resection, in such cases, offers the only chance of saving the life of the patient.

Head.—A curious wound was received by a soldier at the battle on James Island. The missile struck him precisely on the tip of the nose, penetrated the structures behind and tore away a large portion of the palatine bones, without proceeding farther backwards. What finally became of the ball he did not know. It may have been a small rifle-ball, or more probably a buck-shot. No bad symptoms followed the injury, and in a few weeks the wound healed entirely, leaving little of inconvenience or deformity.

Body.—Of wounds of the body, few have been brought into the hospital of very great severity. One worthy of notice was that of a soldier from the fight on James Island, who received a wound from a Minié ball, a little below and behind the arm-pit. It was not attended by any very severe symptoms, and partially healed. A little irritation, however, appeared in it about the 20th of September, more than three months afterwards, which led to an examination, when a piece of cloth, more than an inch in width and three inches in length, was extracted from it.

The 76th Pennsylvania is encamped in the immediate neighborhood of the hospital. On the 14th of September, one of the soldiers of that regiment, while in a state of intoxication, endeavored to break the guard. He was repelled by the bayonet, and wounded in the back. The wound was inflicted over and in a line tending directly towards the right kidney. As several days had intervened before he was admitted into the hospital, it was not then considered prudent to explore it with a probe. The puncture, externally, had nearly closed, but the occurrence of a chill, fever and throbbing in the part, led to suspicion that an abscess was about to form there. A large poultice was applied, and happily a copious discharge of pus took place through the original puncture. Since then he has been doing well, and appears to have a fair chance of recovery.

Upper Extremities.—In battle, it is probable that the upper extremities are more frequently wounded than the lower. At least, that has been the case so far as admissions into this hospital are concerned.

Fore-arm.—Amputation of the fore-arm was necessary in some of the cases received from James Island, but they were not attended by circumstances requiring any special notice.

On the 21st of August last, the rebels surprised and captured a picket post on Pinckney's Island, about six miles from this place. Two of the wounded were admitted into this hospital the same evening—one of them wounded in the fore-arm, the other in the thigh, to which we shall again refer. In the former case, a Minié ball had passed through the left arm, striking the radius near the middle, breaking it into a number of pieces, and leaving a large, lacerated wound at the place of exit. Fortunately, the ulna escaped without the slightest injury. Resection of both fragments of the injured bone was performed; the wound healed rapidly and is now nearly well. There is no crookedness of the arm, nor unnatural position of the hand, and though not less than four inches of the radius has been removed, the limb, supported by the ulna, will still be a very useful one.

Humerus.—The humerus in several instances has suffered injuries which required amputation, but only one of them has been attended by circumstances particularly worthy of notice. One of the soldiers, from the battle of James Island, was wounded by a Minié ball, which struck the right arm on the inner side, a little above the upper third, and passed through in a direct line, the exit being somewhat lower down than the entrance, having an appearance as though the arm had been drawn a little backwards when the injury was received. The bone was shattered and comminuted for more than half its length. The splinters extended from below the middle into the head of the bone. At first it was supposed that resection of the head of the bone might be successfully performed, but on a more careful examination it was resolved to amputate at the shoulder-joint. The operation was very skillfully performed by Dr. J. E. Semple, our Surgeon-in-Chief. The patient bore the operation well, and for a time the prospect of his recovery was good, but about the fourteenth day he suddenly sunk, and soon died. Circumstances did not admit of a *post-mortem*, but it is probable that the immediate cause of his death was the rupture of an abscess internally, as he had complained of considerable pain in one side a few days after the operation. This was a secondary operation. Had a primary operation been performed, the result might have been different.

Lower Extremities.—Though wounds of the lower extremities have been less frequent, they are far from having been less serious than the upper. The fleshy parts of the leg have been, in several instances, perforated, without implicating the bones; in other instances the bones have been shattered by Minié balls, and amputations have been performed, both below and above the knee. In one instance, amputation of the ankle-joint, by Syme's operation, was successfully performed. In this case secondary hemorrhage took place, and it was necessary to re-open the wound in order to secure the bleeding artery.

The surprise of our picket-post on Pinckney's Island has already been referred to. The soldier wounded in the thigh at that place, as has been stated, was brought into the hospital the same day on which his wound had been received, but too late to make a satisfactory examination. The shock to the system had been very severe, and both the stomach and the general circulation participated in it. He was made as comfortable as possible that night, and the next morning he was put under chloroform, for the purpose of making a thorough examination of the wounded limb. In this examination we were assisted by Dr. Crane, Medical Director of this Division, of whose advice and experience we were glad to avail ourselves. It was found that a Minié ball had struck the thigh in front, a little above the upper third, that it had perforated the limb and passed out posteriorly by two orifices, the ball having been divided on the bone. The perforation in front admitted the passage of the forefinger freely into it. The bone could be distinctly felt, with the jagged ends and pieces splintered from it. In this case the splinters extended nearly or quite up to the lesser trochanter. Directly in the course of the ball, several pieces of bone, an inch or so in length, were lying in the wound. The jagged ends of the bone were separated from each other about three inches, besides the splinters, which extended from the ends of them as much more. Altogether, six inches at least of the bone had been injured. It was perceived, of course, that amputation, if performed at all, must be performed so high up as to make it almost equivalent to an operation at the hip-joint. The pulse remaining very feeble, and the stomach still sympathizing, it was concluded that an operation of such a serious character, under such circumstances, could do no more than hasten the impending catastrophe, and it was therefore decided not to amputate the limb. An effort was made to quiet the stomach and relieve the pain, by the administration of large doses of liq. morph., creasote and chloroform, but with only partial success. Death relieved him from his sufferings four days afterwards.

I have thus attempted to give a brief account of this hospital, and of some of the most important cases sent here for treatment. I did intend to have referred to several other subjects, and, particularly, to have offered some hints in relation to the United States hospital system in general, and the means by which greater efficiency could be imparted to it and the expenses diminished. Both these points must soon assume an importance scarcely conceivable at the present moment. I am admonished, however, that my communication has already greatly exceeded anything I had expected or intended, and that therefore I must postpone any further remarks till some future opportunity.

Desiring earnestly that this wicked rebellion, which has already carried wounds and death to so many of our citizens, may be speedily brought to a close, and that all those now in the field may soon be at liberty to return to their homes and to the cultivation of the arts of peace, I am Very respectfully yours,

Thomas T. Smiley, M.D.

MISCARRIAGE, FOLLOWED BY ACUTE PERICARDITIS. DEATH.

By W. W. Wellington, M.D., Cambridgeport, Mass.

[Communicated for the Boston Medical and Surgical Journal.]

A lady, aged 30, in the sixth month of pregnancy, miscarried, having had more or less flowing during the previous fortnight. She was attended by a midwife. There was some trouble about the delivery. The midwife reported that the shoulder presented, and that she delivered by turning. Other accounts represented it to have been a breech presentation.

For the three days following the miscarriage, the lady was ailing; she had fever, but what was the precise trouble, I could not ascertain. On the fourth day, she was much better, sat up in bed, and received company. On the evening of the fourth day, she had chills, followed by fever, and a severe pain at the lower part of the ster-

P.M. She passed a restless night, and I saw her, for the first time, the next morning.

She was a delicate woman, with an infant a year old, which she had weaned only three months before her miscarriage. I found her very sick. The pain, which she referred to the lower part of the sternal region, was very severe. Respiration was very painful at that spot. She lay on the back, with her head raised, and her feet drawn up. She had a high fever: pulse 110 to 120, full and strong. There was no abdominal pain, tenderness, or swelling; not much headache; no cough: the tongue was dry and coated, and the thirst considerable. Auscultation revealed nothing abnormal in the cardiac and respiratory sounds, and percussion was natural over the whole chest. There was no nausea. She had taken a cathartic, which had operated favorably. The great complaint was of the excessive pain, already spoken of, in the region of the sternum.

In the evening, after the application of leeches, counter-irritation, and the administration of small doses of Dover's powder, this pain was a little relieved. But the pulse continued rapid, the fever ran high, and she again passed a very restless night.

The next morning she had an attack of vomiting, followed by purging, and when I made my morning visit she was dying: there was no pulse at the wrist, the extremities were cold, and she was insensible. She died at 10 o'clock, A.M., thirty-six hours from the time of the attack.

An autopsy was made, twenty-four hours after death. Two or three ounces of bloody serum were found in the pericardium: its internal surface was inflamed, with numerous red spots, to which were attached patches and flocculi of soft, recently formed lymph. Flocculi of lymph were also floating in the serum. The lungs were healthy. No disease was found in the uterus, or in the other abdominal organs.

The only symptoms suggesting disease of the heart in this case were the severe pain at the lower part of the sternum, and the dyspnœa. The cardiac sounds, so far as noticed, were normal. The pulse was regular. The effused serum was hardly enough to produce marked dulness, but probably sufficient to prevent a friction sound. The death was sudden and unexpected; the symptoms, the night previous, though severe, not indicating immediate danger. The fatal result was, undoubtedly, owing in part to the debilitated condition of the patient, resulting from the miscarriage, and her previous delicate health. The uterine organs being free from disease, their condition probably had no direct influence in causing the pericarditis.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

SEPT. 22d.—*Black Calculus from the Kidney.*—Dr. WHITE read the following report of the analysis of a black calculus which was shown, lying in the kidney, by Dr. J. Wyman, at a former meeting. Shape, obtuse almond. Weight, 40 grains. Length, 10 lines. Width, 6 lines. Thickness, 4 lines.

Its surface is almost wholly covered with well-marked, conical papillæ and crystalline projections, and is of an intensely black color, with the exception of two small deltoid-shaped portions. These are of a yellowish-white color, and are situated upon one of the flat surfaces, their acute angles nearly meeting in the centre, and forming a depressed girdle, by which constriction the stone was tightly held within the sac, from which it only half projected, and was with difficulty removed. The black substance is hard, shiny in places, and not easily detached. It is deposited in a uniform layer, nowhere exceeding one third of a line in thickness.

Portions of this matter, examined by the microscope, were found to be so deeply colored as to possess no transparency. Treated with concentrated *acetic* and *sulphuric* acids they remained entirely unchanged. *Hydrochloric* acid appeared to have no other effect upon them than to extract a little oxalate of lime, which forms the principal part of the substratum, upon which the coloring matter rests. In *alcohol* and *ammonia* alike unaffected. Boiled with a strong solution of *potash*, the liquid assumed a brown color, which on cooling deposited an amorphous, dark-colored matter, and became colorless again. The fragments thus treated were changed to a deep yellowish brown, and exhibited a concentric, lamellated structure, some of the layers representing circles of small diameter. *Nitric acid*, concentrated, produced a brisk effervescence, and very gradually destroyed the black coloring matter, leaving behind an orange-tinted, uniform tissue, of the original shape and size. After spontaneous evaporation various crystalline forms were observed, some of which were of a yellow color, but in too small quantity to admit a satisfactory examination. A careful analysis was made of as much of the black matter as it was thought well to remove, for iron, but the most delicate tests failed to discover its presence.

What, then, is this peculiar substance? It might at first be taken for hæmatine or some of its modifications, perhaps melanine: but all the blood pigments, as is well known, contain iron, and not a trace of this metal was discoverable in the portion examined, nor do the results of the above tests at all agree with the ordinary reactions of such substances. It would be a very interesting point, moreover, to determine whether the patient ever was affected with hæmaturia, and even if he had been, it seems impossible that so black a pigment could be formed from the coagulation of blood. Whether we are dealing with a simple coloring matter, accidentally mixed with some fibrinous or albuminoid substance, which forms the chief proportion of the layer, as shown by the experiments given, or whether the two are *one* unknown body, it is impossible to decide with the small amount of material at command. The latter, however, seems by far the more [illegible], for I have never seen, nor heard of, a similar substance of any color as a constituent of a urinary calculus.

If, then, we give up the blood as the origin of its formation, can we turn to the urine more hopefully for a solution? I believe not, if we limit its resources to the production of the coloring matters already known, and as exhibited in normal or abnormal conditions; for it has no resemblance to urophæin, uroxanthin or uroerythrin. Moreover, the darkest known pigments the urine is capable of producing, are those imparted to crystals of uric acid, and those which color certain oxalate of lime calculi; but neither of them even approach in intensity the unique specimen now before us. The results of our analyses, therefore, are negative only, and with such we must rest satisfied, for perhaps nothing more definite would result from the employment and destruction of the entire specimen.

Coating the surfaces of the triangular facets, which were protected from the deposition of pigment by contact with the lips of the sac, is a layer of yellowish-white material, composed chiefly of organic matter. By the microscope, large masses of round cells are seen, filled with a fluid, colorless fat, and encrusted with *carbonate of lime*. On the addition of any fluid, the cell walls burst, and allow the fat in large quantities to float away. When treated with acid, thin, membranous flakes are observed, which, with the aggregation of fat cells, are undoubtedly portions of the kidney or cyst, which had undergone fatty degeneration. From the same portions, *oxalate of lime* was also extracted.

On boring into the centre of the calculus, from this point, its interior, the great body of the stone, in fact, was found to be of a hard, gritty nature, and of a grayish-white color. This was found, on analysis, to consist of large crystals of *oxalate of lime*, resembling, beneath the microscope, angular fragments of silica, together with a small portion of *carbonate of lime*.

To review, then, the calculus is composed of—1st, an outside layer of some unknown black coloring matter; 2d, of portions of metamorphosed animal tissue; 3d, of oxalate and carbonate of lime.

Oct. 27th.—*Case of Poisoning from the Pollen of the common yellow Tiger Lily.*—Dr. Jeffries Wyman read the following report of a case by Dr. R. T. Warren, of Waltham, Mass.

"Mrs. B. was making a call at a neighbor's, having with her a little daughter, 4 years old. The child was 'perfectly well,' the mother said, and had been so. It played with another little girl, and did not go out of the room during the call. The little girl came to Mrs. B., requesting her to go and see Fanny, the name of the child. Mrs. B. went, and found Fanny rubbing her nose very violently. Soon there was a profuse discharge of mucus from the nose, colored yellow. The mother questioned the child, and ascertained that she had reached her head out of the window, taken an anther from a tiger lily, and passed it into the right nostril. The child pointed out the lily, and the mother found just one anther missing. Mrs. B. was particular in her inquiries, and the child was positive in stating what she had done. Vomiting soon followed the discharge of mucus from the nose. This consisted at first of chyme, having no appearance of undigested food, and was followed by vomiting of mucus, colored yellow, the same as the discharge from the nose. The child then wanted to go to sleep. The mother took her home, and then sent for me. I saw her at 6, P.M., Wednesday, August 13, about an hour after the anther was passed into the nose. The child appeared sleepy, but was easily roused, and was intelligent. Vomiting of mucus, tinged yellow, occurred while I was present. The yellowness did not seem to be caused by bile. The symptoms did not seem at all alarming. Not aware that the tiger lily possessed any poisonous properties, I felt no anxiety, and went away, after prescribing remedies, requesting to be called if anything new occurred. I was sent for about 10, P.M., four hours afterwards. Evacuations of the bowels had occurred; at first of natural appearance, then followed discharges colored yellow, the same as the vomiting and the discharge from the nose, and at last bloody discharges. The vomiting had occurred occasionally, and this at last became bloody. The child was dull, sleepy and languid. I prescribed astringents, opiates in the form of paregoric, and brandy and water, if the languor should increase. I saw her Thursday morning. A dejection, quite bloody, occurred between 1 and 2 o'clock, A.M., and after that the dejections were checked. She was relieved of the vomiting. The child seemed languid, rather sleepy; no wandering. The eyes had a dull, reddish injection. At 4, P.M., same day, appearance of the child much the same as in the morning. The right nostril was nearly closed; membrane of both nostrils very pale. Some discharge of clear, thin mucus. Friday morning.—The child looked brighter. Same reddish injection of the eyes. No urine had been passed during the last twenty-four hours. Slight feverish symptoms. No delirium. 7, P.M., Friday.—No urine had been passed. Several dejections, dark colored, very offensive. Some fever during the day, slight delirium and startings. Some nausea. Was called to her about 1 o'clock, Saturday morning. Shortly before she had a large, dark-colored, very offensive discharge, and immediately began to sink. She died a little before 4 o'clock, about fifty-nine hours after passing the anther into the nostril."

Bibliographical Notices.

Anatomy of the Arteries of the Human Body, Descriptive and Surgical, with the Descriptive Anatomy of the Heart. By JOHN HATCH POWER, M.D., Fellow and Member of Council, of the Royal College of Surgeons; Professor of Descriptive and Practical Anatomy in the Royal College of Surgeons; Surgeon to the City of Dublin Hospital, &c. Authorized and adopted by the Surgeon-General of the United States Army for use in Field and General Hospitals. 12mo. Pp. 401. Philadelphia: J. B. Lippincott & Co. 1862.

THIS edition of Power's Anatomy has been issued by the publishers with special reference to the wants of our army surgeons, under the sanction of the Surgeon-General. It is admirably calculated for the purpose intended. Compact, thorough, exact in its descriptions, copiously supplied with excellent illustrations, it ought to be the companion of every one of our surgeons in the field. We are particularly struck with the beauty of the wood-cuts. Rarely, if ever, have they been equalled in any work published in America. The lines are sharp and clear, and the cutting is remarkably good, so that the anatomy of the parts illustrated is made perfectly distinct to the eye. The illustrations, seventy-three in number, include all found in the original work, besides a number of new ones prepared under the supervision of an eminent American anatomist. The book is printed on tinted paper, the type is large and easy to the eye, and the whole execution of the work brings it fully up to the standard which the publishers announce that they had in view, that of making it of the most convenient form possible for the surgeon's use. We most cordially recommend it to our army surgeons.

The Hospital Steward's Manual: for the Instruction of Hospital Stewards, Ward Masters, and Attendants, in their several duties. Prepared in strict accordance with existing regulations and the customs of service in the Armies of the United States of America, and rendered authoritative by order of the Surgeon-General. By Joseph Janvier Woodward, M.D., Assistant Surgeon U.S.A., Member of the Academy of Natural Sciences of Philadelphia, &c. 12mo. Pp. 324. Philadelphia: J. B. Lippincott & Co. 1862.

This little work, like the one noticed above, is very well timed. It is just the book that multitudes must have been looking for during the past year, who will find in it their want fully met. It gives minute details concerning every possible duty the hospital steward may be called on to perform. Part I. treats of hospital attendants, their rank, pay, &c., with an outline of their various duties, as well as of the other attendants employed in military hospitals. Part II., of the discipline, police and general supervision of military hospitals. Each is treated of in separate chapters, with full details of every duty. Part III. treats of food and its preparation; Part IV. of the dispensary; and Part V. gives hints on minor surgery and dressings, for hospital stewards. The information here embodied must be very useful to those in charge of government hospitals, as well as the subordinate officers whose duties are specially laid down in it: and if half we hear is true, many of them are greatly in need of it. It is an excellent book, and very well printed.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, NOVEMBER 6, 1862.

We have read with much interest Dr. George H. Gay's elaborate report to the Surgeon-General of Massachusetts of the visit of himself and his associates to Washington, in answer to the sudden call of the Surgeon-General of the United States Army, on the memorable Sunday, Aug. 31st. It will be remembered that in answer to that call in aid of the wounded at the terrible battles of Pope's retreat, the people of Boston and vicinity applied themselves with unparalleled alacrity to the collection of supplies of all kinds which might be wanted in such an emergency. Twenty-seven physicians, with two assistants, left in the evening train for Washington, as volunteers, in answer to the summons of the morning, accompanied by an amount of medical and other supplies which had been got together in those few short hours, so large as almost to stagger belief. Of this delegation Dr.

Gay was appointed the chief, and to him was given authority for the distribution of these supplies. It is well worth putting on permanent record the fact that they amounted to "1,739 cases, making some 100 tons, besides others directed to the Sanitary Commission, at Washington, and many under the immediate supervision of Mr. Twitchell." A lasting memorial of the energy and humanity of the people of our old Commonwealth.

Dr. Gay gives a succinct account of the movements of his party, and the various circumstances which prevented the application of all the articles entrusted to them in the way in which it was originally intended to distribute them, and of the wise discretion with which they were finally disposed of, so as to do the most good. Finding it was impossible for the whole party to reach the scene of the recent battles, it was determined to make the best of their time in the Capital by visiting every hospital in the city, and seeing in person every Massachusetts soldier in them, inquiring into his particular wants and meeting them to the full measure of their ability. This was most effectually done, members of the party being detailed to each hospital; and in an appendix to the report we find the individual report of each visitor, with the name of every Massachusetts soldier in hospital at the time of visitation, the number of his regiment and the company, his wound or disease, and his condition, together with such remarks as the visitor saw fit to append. The whole make an interesting and valuable appendage to Dr. Gay's report, and present, in general, a very favorable view of the condition of the military hospitals of Washington at that time. An exception should be made in the case of the Fairfax Seminary Hospital, of which little could be learned, owing to the excessive courtesy of the surgeon in charge, which completely frustrated the design of the visit. We have heard of "bowing out" before, but rarely have we known so remarkable an instance of it. Drs. Buckingham and Thaxter's report of their visit is a model specimen of ingenious and elegant sarcasm.

Dr. Gay had the best opportunity of judging of the operations of the Sanitary Commission, and we cannot refrain from quoting from his testimony in favor of its usefulness. Dr. Gay says:—

> "What I saw of the practical working of this association, at Washington and its neighborhood, demands that a few words should be said in relation to it.
>
> "The operations of its different departments are on an immense scale. The officers, executive and others, seem to have fully comprehended the magnitude of the field for their labor. Systematized, disciplined, and with a head, their movements proceed as with a knowledge of what was to be done, and of the material to do with.
>
> "The amount of actual benefit and comfort to the wounded soldier, to the sick soldier, and to the destitute soldier, since the war commenced, would, if known, be truly enormous, and a thing unheard of in all previous wars. It was not an unusual thing to see surgeons, chaplains, and others, make application for the relief of whole regiments, companies, and for individuals; and on making the requisition over to Mr. Knapp, he would immediately issue the various articles, and in frequent instances would transport them in their own wagons. By application of proper persons, at proper places, nearly all wants could be supplied. What they have, they give freely; what they have not, they will try to get.
>
> "The degree of suffering to our soldiers, if this association were contracted in its means and limited in its facilities, would be wholly incalculable.
>
> "Willingly are its benefits bestowed upon all. The States, one and all, are therefore interested in its active continuance. Contributions constantly and

freely will be needed, in money and whatever may alleviate the hardships of a soldier's life, whether on the battle-field, in camp, or in the hospital.

"There was no way for me to get, without delay, transportation for the articles needed by the 1st Massachusetts regiment. On talking with Mr. Knapp, he promptly and without hesitation sent them in two of their own wagons.

"It was a gratification to Drs. Buckingham, Thaxter, and myself, to witness the feelings of the soldiers as they saw the wagons come up. Many said, 'God bless the ladies and all who remember us.'

"With this knowledge of the doings of this body, I felt nothing better could be done with our goods, after we had drawn all we needed and given an order to supply the wants of Dr. Ellis, than to divide the remainder between this Commission and the younger but excellent Association for the relief of Massachusetts soldiers.

"It is perfectly safe to say that the Sanitary Commission have been, and will be, good managers. Give largely to them, for our soldiers will need largely. Spread freely and widely the knowledge of this charity among our soldiers, so that they may feel that if they will only ask they will receive."

In addition to the visits to the hospitals, visits were made to the camps of the 1st, 11th and 16th Massachusetts regiments, which were found in the greatest destitution, the wants of all being the same; namely, a supply of shirts, socks, drawers and shoes. All of these articles, with the exception of shoes, were supplied from the stores in charge of Dr. Gay, and arrangements were made for finding out, and aiding in a similar way, the 15th regiment. Dr. Gay sums up his account of his stewardship as follows:—

"As to the disposition of the many and various contributions, it will be seen that two wagon loads of assorted articles were sent to the battle-field on the evening of Sept. 3d, the day of their arrival; on the next day, Sept. 4th, Dr. [illegible] had the distribution of a much larger quantity; on Sept. 5th, 6th and 7th, the soldiers in the different hospitals received their supplies; on the 5th, also, are recorded the receipts of Mayor Wightman; on the 6th, the Massachusetts 1st Regiment, in camp, had two wagon loads, and the 11th and 16th Massachusetts Regiments were to have their supplies. The remainder of the goods was to be given to Dr Ellis, who was to remain in Washington, the Sanitary Commission, and the Association for the Relief of Massachusetts Soldiers."

Dr. Gay gives due credit to the many ready hands which assisted him in carrying out the objects of the expedition, mentioning with special commendation Mr. John S. Blatchford, the Secretary of the delegation, for his very efficient aid in arranging the various reports of the different members of the delegation, and in the final distribution of the various parcels to the soldiers—the various gentlemen connected with the railroads, expresses, &c., the committee of Ward 4, the policemen of Boston, detailed by the Mayor to accompany the party to Washington—the Government officers at Washington—in short, all who were properly associated with the expedition. All seem to have been animated by but one purpose, that of doing in the speediest and most efficient manner possible, all in their power to relieve the sufferings of those who needed it so much.

We have followed Dr. Gay's interesting report to its close; but we cannot conclude without recurring to the subject of the ambulance system, which calls so loudly for reform, or rather for creation. Dr. Gay introduces Dr. Bowditch's communication upon this subject to the Boston Society for Medical Improvement, which we published some weeks since, and also a report by Dr. Stedman, who was with the train which Dr. Bowditch accompanied. We copy the following extracts from Dr. Stedman's report, as they give the fullest confirmation of the entire accuracy of Dr. Bowditch's statements.

"At 10 o'clock, Sept. 5, 1862, a message came to 'Willard's,' in Washington, from Surgeon-General Hammond, that two surgeons were much needed at a spot between Fairfax Court House and Centreville, where many soldiers lay wounded and starving. Dr. Bowditch and myself immediately volunteered our services, and at 11, P.M., we started in a train of fifty ambulances for the scene of suffering. The distance to be travelled was about twenty-two miles. The halts on the way were numerous, and some were prolonged most unnecessarily, as it seemed to us. The horses were stout, the weather cool till after sunrise, and then warm, but the heat not exhausting. At the end of the journey we were to find men dying from starvation and neglect of surgical attendance; and yet the horses must be allowed to walk a great portion of the way, and be watered every few miles, while the freight of each wagon was light. Beyond all example, the driver of the ambulance, in which it was my lot to ride, was the most vulgar, ignorant and profane man I ever came in contact with. But in contrast with him, the driver of the ambulance in which I returned was one of the most humane men. He had been a soldier in the regular army for nine years—had been wounded in one of our earliest battles, and since his recovery had been employed as Government teamster. On the wagon-master's command to him to drive faster, and keep up with the ambulances ahead of ours, he remonstrated, saying the men in his wagon were suffering intolerably already, and he did not intend to make them suffer more if he could prevent it. His expressions of sympathy were frequent, and doubtless afforded some consolation to the wounded. One or two other drivers, who came under my notice, behaved themselves with becoming humanity and gentleness in their assistance of the sufferers; though, as a body, these drivers were such as would disgrace, it may be, any menials ever sent out to the aid of the sick and wounded. The wagon-masters themselves, of whom we expected better things, were not overborne, apparently, by any deep sentiments of compassion for the sufferers. I noticed that in going to the battle-field they took no pains to hasten on the train. On the contrary, as before said, the halts were too frequent and prolonged. But in returning, though admonished by the groans of the soldiers, which were continuous from one end of the train to the other, they often urged the teamsters to drive faster. * * * *

"In the afternoon, we loaded the ambulances with the wounded, and at 4½ o'clock started for Washington, which, after a night of horror, made such by the cries and groans of the sufferers, the drunkenness, profanity and inhumanity of the drivers, we reached about four o'clock the next morning. The men were deposited in the various hospitals in the city, and at noon I found some of them, those two especially upon whom I had operated, contented and cheerful as possible under the circumstances.

"I shall never forget the anxiety with which I watched for the safety of those two men. But one ligature had been required in securing the artery in the thigh. Suppose from the constant jolting of the wagon, or from any other cause, that ligature should have come off; or that such should have been the case with the man whose arm had been lost, how could life have been saved? No one ambulance would have been allowed to stop, as the whole train would have then been compelled to wait, and the sufferings of all the other wounded would have been increased or prolonged. Thank Heaven, no such accident occurred, and I hope no one was permanently afflicted by this sad journey."

Need anything more be said to rouse the community to an imperative demand that such outrages shall be at once and forever put an end to?

Mr. Editor,—During a two or three years residence with a subscriber of yours in Mississippi, I frequently observed his application of minor details in treatment derived from those short paragraphs to which so much space is given in your pages, and which I doubt not contributed largely to his more than ordinary success.

Encouraged by the readiness with which you receive the smallest trifle that may contribute to successful treatment, I beg leave to offer the following suggestions upon a subject already treated of in your pages. Very respectfully, &c.,

Boston, Oct. 24, 1862. AN EX-SOUTHERN APOTHECARY.

Scraped lint is rarely, if ever, necessary, where unmanufactured cotton can be had and properly treated. Take the cotton fresh from the pod if you can, wet it, press it dry, pick it until loose and free from knots, when you will have a better absorbent than lint, oakum or tow, and one that in the Southern States is free of all objections.

Prepared by shaking the water out, instead of pressing, it is a better application than the slippery elm poultice, especially in hot climates, where that substance is liable to change; and this is, also, in expert hands, often the best way of preparing it as a substitute for the sponge.

BOSTON DISPENSARY—STATISTICS FOR THE YEAR ENDING OCT. 1ST, 1862.

NEW PATIENTS.

Central Office.		*Districts.*	
Medical—Men,	1,349	Men,	1,237
Women,	3,360	Women,	3,563
Children,	2,498	Children,	4,769
Total,	7,207	Total,	9,569
Surgical—Men,	889	*Central Office and Districts.*	
Women,	1,138	Men,	3,475
Children,	1,289	Women,	8,061
		Children,	8,556
Total,	3,316		
Medical and Surgical—Total,	10,523	Total,	20,092

OLD AND NEW PATIENTS.

Central Office—Medical,		16,417
" " Surgical,		7,433
Total,		23,850
Average daily attendance,	77	
Districts—Births,	279	
" Deaths,	306	

NEW PATIENTS.

District.	*Physician.*		*District.*	*Physician.*	
1.	Charles C. Street,	1,596	6.	John G. Blake,	825
2.	John W. Hinckley,	407	7.	Thomas H. Hoskins,	1,008
3.	John Stearns, Jr.,	1,514	8.	Robert Provan,	1,045
4.	Henry L. Shaw,	1,558			
5.	Howard F. Damon,	1,616		Total,	9,569

Total number of prescriptions, 41,000

HOWARD F. DAMON, M.D., *Superintendent.*

An esteemed professional friend, occupying a responsible post in the Army, in a private letter to us says:—

"Pitch into the ambulance system. Ambulances are awful things to ride in, any way, sick or well. Cannot the universal Yankee genius devise something better? We are trying stretchers on either side of a horse or mule. ('Mule ambulance' is the name given them, but it don't describe the thing.) There is too much motion. Nothing is so good as the hand stretcher, when it can be used."

Sore Throat and Hoarseness.—The *Journal des Connaissances Médicales* publishes some curious remarks, by Dr. Caffe, on hoarseness. A sore throat, having its seat in the larynx, is often followed by a partial loss of voice, which it is very difficult to remove. Singers and public orators are frequently attacked with sudden and obstinate hoarseness. When Napoleon I. returned from Elba, he was seized with this affection but a few hours before he had to reply to the harangue of the municipality of Lyons. His physician, Dr. Fourreau de Beauregard, prescribed the following potion: Liquid ammonia, 10 drops; syrup of Crysimum, 45 grammes; infusion of blossoms of the lime tree, 90 grammes. (To be taken in one draught.) It produced the desired effect immediately, and was afterwards known by the name of "Imperial potion." The late Dr. Bennati, of Paris, physician to the Italian Theatre, who himself possessed one of the finest voices known, and lost his life in consequence of injuries received from an unmanageable horse, used to prescribe the following gargle for hoarseness:—Water, 250 grammes; alum, 6 grammes; diacodon syrup, 60 l/ grammes. (To be used every half hour.)

Dr. Bennati's voice was so remarkable that Professor Magendie requested Dr. Caffe, who had dissected the body, to favor him with his larynx, which he subsequently made the subject of one of his best lectures at the Collége de France. A lady, on the other hand, had one of his teeth set in a ring, which she constantly wore ever afterwards. Bennati's skull was deficient in diploe, and the external table was therefore all one with the internal one; its structure was foliaceous, an anatomical arrangement common to all singing birds, and the cause probably of the numerous fractures of skull which led to his death. When a public man is affected with sudden hoarseness just at a time when he *must* speak, the impediment may be removed by the application of a mustard plaster around the neck, and another at the base of the breast. In chronic hoarseness, Dr. Graves recommends a gargle composed of 3 grammes of tincture of Guinea pepper, and 145 of a decoction of bark, to be used five or six times a day; at the same time the front part of the neck is frequently rubbed with the following liniment:—Camphorated oil, 24 grammes; croton oil, 8 grammes. Of this compound, 6 grammes are to be used daily, until a confluent eruption is produced, when it is suspended until after desquamation. The drinking or the inhalation of the effluvia of sulphureous springs is also useful.—*Paris Correspondence of the British American Journal.*

Hospitals in Georgetown, D. C.—There are six in the city, viz.:—The Seminary (for sick and wounded officers), the Union Hotel, the Warehouse, Georgetown College, the Presbyterian Church, and the Methodist Church, the latter having been opened on the 10th ult. These hospitals are under the supervision of Dr. B. A. Clements, U.S.A. Dr. Hinkle, U.S.N., has now assumed the control of the Seminary Hospital, in lieu of Dr. J. F. Kennedy, who has recently resigned on account of ill health. Dr. B. Knickerbocker, U.S.A., has assumed the charge of the Presbyterian Church Hospital in place of Dr. L. M. Emanuel, assigned to his regiment. With the exception of one or two typhoid cases there is no severe sickness now in this hospital, which is one of the best in Georgetown. This is due to the excellent condition in which the hospital is kept by the officers in charge. The assistants are Drs. Rowland and Good, and Medical Cadets Hannen and

Hyde. Oct. 10th, the number of patients in this hospital, including convalescents, was about 150.

Inoculation with Straw Fungi.—In Nos. 25 and 26 of the last volume of this Journal, appeared an article by Dr. Salisbury, of Newark, Ohio, containing an account of certain interesting experiments with the fungi of wheat straw. These experiments were instituted on account of previous observation having shown that a disease like measles was sometimes caused by the inhalation of the dust or vapor from these fungi, and the experiments themselves showed that inoculation of the human system with the spores or cells of wheat and rye straw fungi produced an eruption which seemed to protect the system against the contagion of genuine measles on subsequent exposure. In the October number of the *American Journal of the Medical Sciences*, Dr. Salisbury has another article on the subject, in which he gives a detail of further experiments, testing the prophylactic virtues of this novel inoculation. In the Ohio State Reform Institution, measles made its appearance about the 30th of May last, and all the boys, 175 in number, were exposed. On the 6th of June, Dr. S., in company with Dr. Boerstler, inoculated twenty-six healthy lads who had never had the disease, with mould from wheat and rye straw grown in Dr. S.'s office. Twelve boys were then recovering from the disease and six were sick in bed. In all of the inoculated, the blotch made its appearance on or before the 9th, some having red lines radiating from the wound, and others not. In four, eruption occurred, and several had headache, cough, coryza and lassitude, but all were well by the 24th, no effect having followed their exposure to the contagion of measles.

Dr. Salisbury states that he is preparing for the press an account of additional experiments connected with fermentation, decay and fungoid development, which will be looked for with much interest by the profession.

New York Ophthalmic School.—Dr. Mark Stephenson delivered the introductory to his *eleventh course* of lectures on the diseases of the eye, at the New York Ophthalmic Hospital, corner of Fourth Avenue and 28th Street, on the 24th ult., to a large and attentive audience composed of physicians and medical pupils in the city. He commenced by welcoming the students to the New York Ophthalmic Hospital, and added he was happy to announce to them that the institution in whose behalf he appealed was never in a more prosperous condition than at the present time, averaging a thousand patients per annum, and numbering over 300 graduates since its organization in 1852, 85 of whom were M. D.'s. He proceeded to lay down very precisely the special duties of the ophthalmic surgeon, and urged upon his hearers the great importance to every physician of a thorough scientific knowledge of the diseases of the eye and their treatment. In conclusion, he urged them to think nobly of their profession, remembering that its end is beneficent, its studies elevating, its ministrations an exercise of the best qualities. To excel in it is worthy of all one's aspirations and energies, but requiring mental and moral discipline, patient and persevering labor.

Annual Meeting of the Massachusetts Medical Benevolent Society.—This Society held its annual meeting last week at the rooms of the Massachusetts Medical Society. The Treasurer submitted his annual report, by which it appeared that the receipts of the Society during the year were $2,862.35, and the expenses $33.05. The Treasurer announced that the Society had received from the executors of the will of the late Miss Mary P. Townsend the sum of $500. The following officers were elected for the ensuing year:—*President*, Dr. George Hayward; *Vice President*, Dr. A. A. Gould; *Secretary*, Dr. J. N. Borland; *Treasurer*, Dr. F. Minot; *Trustees*, Dr. John Homans of Boston, Dr. Anson Hooker of East Cambridge, Dr. George Hayward of Boston, Dr. P. M. Crane of East Boston, Dr. R. M. Hodges of Boston, Dr. B. E. Cotting of Roxbury, Dr. S. L. Abbot of Boston, Dr. J. B. Forsyth of Chelsea, Dr. J. P. Reynolds of Boston.

TWO REMEDIES FOR PRURITUS ANI.—At an informal meeting of several physicians of this city, a few evenings since, the following remedies were incidentally mentioned by gentlemen present, as having been very successful in their hands, in the treatment of this troublesome complaint:—℞. Acid. hydrocyan., fʒss.; hydrarg. chlorid., gr. i.; misturæ amygdalæ, f℥j. M. ℞. Unguent. hydrarg. nitrat. fort.

DR. WM. WARREN GREENE, of Maine, has accepted a professorship in Berkshire Medical College. During the present term Prof. G. gives the course upon Theory and Practice, and also during the last half of the term fills the chair of Clinical Surgery.

DR. HENRY H. SMITH, Surgeon-General of the State of Pennsylvania, after seventeen months of active service, has resigned his office, and has been succeeded by Dr. John King, of Pittsburg.

Surgeon I. F. GALLOUPE, 17th Mass. Vols., has been placed on temporary duty in the city of Washington, while awaiting examination for appointment in the corps of Volunteer Surgeons.

It is in contemplation to erect a new General Hospital at Evansville, Indiana, the plans for which have been submitted to the Quartermaster-General.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, NOVEMBER 1st, 1862.

DEATHS.

	Males.	*Females*	*Total.*
Deaths during the week,	32	27	59
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	34 0	33 8	67 8
Average corrected to increased population,	..	..	74.75
Deaths of persons above 90,	..	0	0

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
11	3	2	1	5	0	1	3	1

COMMUNICATIONS RECEIVED.—Excision of a large Uterine Polypus. By S. Fitch, M.D., Portland, Me.—Report of Cases in the Academy Hospital at Newbern, N. C. By George Derby, M.D., of Boston—Case of Poisoning by Cannabis Indica. By Francis H. Brown, M.D., Cambridge.—Paris Medical Men and their Charges, &c. By Joseph Comstock, M.D., Lebanon, Conn.—Case of Prolonged Menstruation.

DIED,—In South Danvers, Oct. 29th, Dr. Samuel A. Lord, 40 years 8 months—son of Rev. Dr. Lord, President of Dartmouth College.

DEATHS IN BOSTON for the week ending Saturday noon, November 1st, 59. Males, 32—Females, 27. Accident, 1—apoplexy, 1—inflammation of the brain, 1—bronchitis, 1—cancer (of the uterus), 1—cholera infantum, 3—consumption, 11—croup, 2—diarrhœa, 3—diphtheria, 1—dropsy, 1—dropsy of the brain, 2—drowned, 1—dysentery, 1—scarlet fever, 1—typhoid fever, 3—disease of the heart, 2—homicide, 1—infantile disease, 1—intemperance, 4—congestion of the lungs. 1—inflammation of the lungs, 5—marasmus, 1—pleurisy, 1—premature birth, 3—purpura hæmorrhagica, 1—scirrhus, 1—tumor (of uterus), 1—unknown, 1—varioloid, 1.

Under 5 years of age, 21—between 5 and 20 years, 6—between 20 and 40 years, 13—between 40 and 60 years, 14—above 60 years, 5. Born in the United States, 36—Ireland, 14—other places, 9.

THE
BOSTON MEDICAL AND SURGICAL JOURNAL.

Vol. LXVII. Thursday, November 13, 1862. No. 15.

PARIS MEDICAL MEN AND THEIR CHARGES. SIR BENJ. C. BRODIE. NERVOUS IRRITABILITY. DR. ABERCROMBIE. HYDROCELE.

[Communicated for the Boston Medical and Surgical Journal.]

Samuel G. Goodrich, Esq., U. S. Consul at Paris in 1851, gave me the following history of his own case, and other medical matters, which interested me very much, as I trust it may your other readers. Mr. Goodrich published, as an author, one hundred and seventy volumes, a number of them under the fictitious title of Peter Parley, and says:—

"In the midst of these labors—that is, in the spring of 1832—I was suddenly attacked with symptoms, which seemed to indicate a disease of the heart, rapidly advancing to a fatal termination. In the course of a fortnight I was so reduced as not to be able to mount a pair of stairs without help, and a short walk produced palpitations of the heart, which in several instances deprived me of consciousness. There seemed no hope but in turning my back upon my business, and seeking a total change of scene and climate. In May I embarked for England, and after a few weeks reached Paris. I here applied to Baron Larroque, who, assisted by L'Herminier—both eminent specialists in diseases of the heart—subjected me to various experiments, but without the slightest advantage. At this period I was obliged to be carried up stairs, and never ventured to walk or ride alone, being constantly subject to nervous spasms, which often brought me to the verge of suffocation. Despairing of relief here, I returned to London, and was carefully examined by Sir B. C. Brodie. He declared that I had no organic disease, that my difficulty was nervous irritability, and that, whereas the French physicians had interdicted wine and required me to live on a light vegetable diet, I must feed well upon roast beef, and take two generous glasses of port with my dinner! Thus encouraged, I passed on to Edinburgh, where I consulted Abercrombie, then at the height of his fame. He confirmed the views of Dr. Brodie, in the main, and, regarding the irregularities of my vital organs as merely functional, still told me that, without shortening my life, they would probably never be wholly removed. He told me of an instance in which a patient of his, who, having been called upon to testify before the committee of the House of Commons in the trial of Warren Hastings, from embarrassment had been seized with palpitation of the heart, which continued to his death, many years after. Even this sombre view of my case was then a relief.

"Four-and-twenty years have passed since that period, and, thus far, my experience has verified Dr. Abercrombie's prediction. These nervous attacks pursue me to this day, yet I have become familiar with them only as troublesome visitors; I receive them patiently, and bow them out as gently as I can."

Mr. Goodrich's note to the above contains so much sound sense and medical philosophy, that I copy it entire. He says:—

"I make this statement, chiefly, because I think it may be useful to persons, who, like myself, have abused their constitutions by sedentary habits and excessive mental labor, and who consequently are afflicted with nervous attacks, putting on the semblance of organic diseases of the heart.

"Not long since I met with an old friend, a physician, who had abandoned his profession for authorship: with a dejected countenance he told me he was sinking under a disease of the heart! I inquired his symptoms, which corresponded with my own. I related to him my experience. A few days after I met him again, and saw by his cheerful face that I had cured him. I give this prescription, gratis, to all my literary friends: let them beware of overtasking the brain; but if they do make this mistake, let them not lay the consequent irregularities of the vital organs to the heart. In nine cases out of ten they belong to the head—to the nervous system—which centres in the brain. Get that right by bodily exercise, by cheerful intercourse with friends, by a conscience void of offence, by generous living, by early rising and early going to bed, and by considering that the body will always take vengeance upon the mind, if the latter is permitted to abuse the former."

In relation to the French physicians, Mr. Goodrich thinks ours quite their equals; also, that the Anglo-Saxon race will find their own medical men better adapted to treat the diseases of their own race, than the Gallic. This was very decidedly the fact in his case. And he further observes, that "There is, no doubt, great science in the medical and surgical profession in Paris; but there are two things to be suggested to those who go there for advice. In the first place, these practitioners are very daring in their treatment of strangers; and in the next, their charges to foreigners are about double the ordinary rates." Of this he relates the following interesting case in confirmation, and says:—

"While I was in Paris, a very wealthy and rather aged gentleman from Virginia consulted an eminent surgeon there, as to hydrocele. An operation was recommended and performed, entirely against the advice of a Virginia physician, who chanced to be in Paris and was consulted. In thirty days the gentleman died. He had intrusted his affairs to me, and I paid his bills. The charge of the surgeon was five thousand francs! The bills of the nurses, hotels, attendants, &c., were of a similar character. A young physician, who had been employed fourteen days as a nurse, estimated his services at fifteen hundred francs! I make these remarks, that my countrymen going to Paris for medical or surgical advice, may be duly warned against placing themselves in the hands of rash, unprincipled practitioners. A great name in Paris is by no means a guarantee of that care, prudence and conscientiousness, which belong to the physician at home."

Mr. Goodrich's remarks upon nervous irritability, &c., put me in mind of a case to which I was myself called not many years past. It was that of a physician, a very close and profound student, whose many publications are well and extensively known and appreciated. He was laboring under what he termed and considered palpitation of the heart. My first prescription was chloroform, the maximum dose not to exceed sixteen drops; which he took with immediate relief, and expressed his wonder that he had not thought of the same remedy himself. JOSEPH COMSTOCK, M.D.

Lebanon, Conn., Oct., 1862.

P. S. This is perhaps from the oldest living writer of your Journal. I was 85, the second day of January last, and write this without spectacles, which I have never used. J. C.

CASE OF POISONING BY CANNABIS INDICA.

BY FRANCIS H. BROWN, M.D., CAMBRIDGE.

[Communicated for the Boston Medical and Surgical Journal.]

ON the 11th of April last, I was called to see C. C., a druggist's clerk, who had been experimenting with Indian hemp. About 4, P.M., he had taken half a grain of extract cannabis Indicæ; at 4½, half a grain more; at 4¾, one grain more; at 5, two grains; and at 5¼, still again, two grains—in all, six grains of the solid extract. Took tea, as usual, about 6½.

At 7½, noticed that he felt somewhat nervous and dizzy, and that he gave wrong change to a customer. A few minutes after, when out on an errand, felt an irresistible inclination to run; at the same time a sense of "contraction" of entire genito-urinary organs and great desire to urinate, with much strangury on passing water; also excessive dryness of fauces, coming on suddenly and with much thirst. On returning to his place of business, patient found it impossible to keep still, on account of an irresistible desire to be constantly on his feet. At this point I first saw him—found him walking, at a quick pace, almost on his toes, round a room about eight feet square. Within a few minutes spasms supervened, during which, at times, the flexors and extensors, at times the abductors and adductors of the whole body, were thrown into violent alternate action. While sitting in a chair, one minute his feet would beat a tattoo on the floor; and the next, his knees beat violently together. The spasms increased in severity and frequency for half an hour, and then gradually diminished, after emesis had been induced. Patient could, by strong exercise of his will, restrain the spasms; but, on fresh access, they were much more violent. They were unaccompanied by pain; but, after a time, he experienced a sense of weariness, as after the spasms of tetanus.

Patient describes his mind as being "dull" and somewhat confused, but says, that, at no time, did he lose consciousness in any degree. At no time any delirium. At but one time did he experience any mental disturbance, when he thought the vomitus was the head of a hippopotamus, and again a bunch of earth worms. He noticed that, if anything ludicrous were said or done, or any idea suggested, which required more than the most common exercise of mind, the spasms were considerably intensified.

The senses of seeing and feeling were somewhat diminished; other senses perfect. Had tinnitus aurium. Pupils unchanged at any time; conjunctivæ much congested. Pulse, at 8½, about 140, somewhat irregular in character and frequency. At 10, pulse 90. Patient got an active emetic, which caused vomiting of ingesta, having the odor of Indian hemp.

The symptoms lasted, in severity, about an hour; then gradually diminished. Had a few more spasms during the night, but not severe. Twenty-four hours later, the desire for constant motion and an occasional slight spasm persisted; but these soon passed away, and the patient was well.

October 30*th*, 1862.

SURGICAL OPERATIONS AT THE GENERAL HOSPITAL AT NEWBERN, N. C.

[Communicated for the Boston Medical and Surgical Journal.]

Academy Hospital, Newbern, N. C., Oct. 20*th*, 1862.

Mr. Editor,—I send you a contribution to the surgical history of the war, in the form of a tabular statement of operations and their results, from March 19th to October 1st, at this General Hospital, of which I have been in charge during the whole period. I include in this statement operations done on the field when the patients were immediately afterwards brought into hospital.

Amputation of Thigh.—Primary, 5; with 4 recoveries.
Secondary, 2; " no "
Amputation of Leg.—Primary, 3; with 3 recoveries.
Secondary, 4; " 3 "
Amputation of Arm.—Primary, 7; with 5 recoveries.
Secondary, 1; " no "

Amputation of Forearm.—Primary, 1; with 1 recovery.

Amputation of Shoulder-joint.—Primary, 1; with no recovery.

Resection of Humerus (three inches of shaft).—Secondary, 1; with 1 recovery.

Amputations of fingers and toes, and minor operations generally, I have not included. They have done well. The shoulder-joint and two of the arm-amputation cases died from pyæmia at about the eighth day. The only case of primary thigh amputation in which death ensued was, up to the twenty-first day, among the most promising in the hospital. At that time the femoral artery gave way from an unusual effort made by the patient.

I may also mention (though not in connection with the General Hospital), a case in which, four weeks ago, I resected the shoulder-joint and three inches of shaft of humerus in a patient at the regimental hospital of the 3d N. Y. Cavalry. Three weeks previous to the operation, a Minié ball had passed directly through the joint, comminuting the glenoid cavity, the head and three inches of the shaft of the humerus. This case has done perfectly well, and the man will doubtless recover, with an arm shortened about three inches. The degree of motion in the false joint remains to be proved.

You will observe the disparity, in accordance with what McLeod and others have told us, between recoveries from primary and secondary operations. I feel well assured that when life is to be saved by operation on the severely wounded, it must be on the field of battle, and not after inflammation has been set up.

With regard to the necessity for operation after severe gun-shot wounds, the impression which I have received is that the effort to save limbs, conservative surgery (always excepting resections of the upper extremity), is generally followed by a sacrifice of life. With the same cases again presented, which have passed through my hands during the past seven months, I should operate more frequently. I venture to observe, also, that I believe the use of sutures is a constant source of irritation, and a frequent cause of pyæmia. I have recently given them up almost entirely in amputations, relying upon liberal flaps, and moulding the stump with adhesive straps.

Oakum, as an absorbent of discharges from gun-shot wounds, as recommended in the Journal, I find of great convenience.

Very truly yours, George Derby,

Surg. 23d Mass. Vols., and Post Surgeon.

P. S.—In two cases of delirium tremens which have been recently brought to my notice, I suggested the use of strong coffee, which I remember to have heard recommended by Dr. Cabot. In both it was perfectly successful, sleep following its exhibition in a few hours. It seems paradoxical. But may not the nervous system thus be safely reinforced and brought up to sleeping point? In so far as two cases are of value, I report the facts. G. D.

PLASTIC OPERATION ON THE PALATE.

By Charles Gaine, Esq., M.R.C.S.

I was consulted by a gentleman on the 3d of May, 1862, with regard to the extraction of some loose and carious teeth in the lower jaw. As soon as he spoke I observed the characteristic nasal "snuffle" indicative of defective palate. This, however, I did not inquire into until the necessary operations on the lower jaw were completed, when, upon rinsing his mouth, I saw a quantity of sanious-colored water issue from the right nostril. I immediately requested him to allow me to examine the roof of his mouth, which he at once acceded to. I there found a sinus nearly three-fourths of an inch long, extending from before backwards, in a line with the process of the palatal fang of the first molar tooth, and about half an inch from the raphé; the bone on either side of the opening somewhat hypertrophied.

Upon inquiring into the history of the case, it appeared my patient had, while travelling in the East in 1853, suffered much from severe toothache on the right side of his mouth. He embraced the first opportunity of getting the first molar and second bicuspid in the upper jaw extracted, not, however, before suppurative inflammation of the periosteum had set in and involved the antrum, an opening into which was made through the alveolar process of the first molar tooth, in order to evacuate pus, a discharge of which was kept up through the opening, together with exfoliation of small pieces of necrosed bone, for a period of nearly two years, when it ceased, and an attempt was made to close the opening by approximating the edges, which failed.

Upon his arrival in England he consulted an old medical friend, who again operated, but with a like result; and from that time (1856) till now, all operative interference was abandoned as useless. I expressed a willingness to try an operation myself, explaining the nature of it to my patient, at the same time cautioning him not to be too sanguine as to the probability of a successful issue. He thought the plan suggested feasible, and at once consented to give it a trial. Accordingly on the following Tuesday (May 6th), I proceeded to perform a plastic operation to cover the opening.

An incision was made corresponding with the length of the fissure, about two lines on the right side of the raphé, also two angular incisions from each end of the longitudinal cut to each extremity of the sinus. This was then reflected outwards to the edge of the fissure, and divided at each end, leaving only a pedicle in the centre, connecting it with the palate. The outer edge of the opening was then pared, and the flap formed from the palate, twisted upon itself, so as to bring the epithelial surface outwards. The whole was then secured with silk sutures. Hæmorrhage having ceased, a temporary caoutchouc obturator, previously modelled to the mouth, with a vacuum over the cut surface, was worn for a few days, in order to prevent any foreign matter interfering with the process of union.

On the third day after the operation I removed four of the sutures, and on the fifth day the remainder. The wound may almost be said to have healed by adhesive inflammation, though some trifling amount of suppuration was set up in the part where the flap was dissected from, which, however, granulated healthily; and on the 26th of May the wound had healed, the aperture was effectually closed, all nasal snuffling entirely removed, and the patient enabled to swallow fluid without the slightest inconvenience—a boon he had been a stranger to for nine years.

Remarks.—I was induced to try a plastic operation in this case on account of the inelastic nature of the tissues covering the hard palate preventing the edges of the fissure properly approximating without very great tension, which was doubtless the cause of the two former operations failing. My chief doubt of a successful result by a plastic operation was the low vascularity of the tissue to be operated upon. This, however, did not tend in the least degree to retard the reparative process, which was complete at the end of a month. Casts of the mouth were then taken, and my patient supplied with a masticatory apparatus attached to an obturator covering the part where the sinus had been. He expressed himself highly gratified at the result, which was in every respect most satisfactory. —*London Lancet*

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

OCT. 27th.—*Dislocation of a Rib from its Sternal Cartilage.*—Dr. MINOT reported the following case.

A laboring man, calling himself 66 years of age, but apparently much older, entered the hospital, Oct. 1st, having been struck in the breast by the shaft of a wagon, twelve days previously. Since that time he had had cough and expectoration of purulent mucus (but no hæmoptysis), dyspnœa and prostration. He admitted, after close questioning, that he had had some cough and expectoration before the accident, but called himself well. On entrance, he was somewhat prostrated, with a pulse of 96, frequent but not painful cough, and copious expectoration of purulent mucus. On placing the hand on the chest, a little to the left of the sternum, and causing the patient to cough, the fourth rib could be felt to detach itself from the cartilage with a strong jerk, and rise nearly an inch above it. This movement was accompanied with a sound which was audible to the bystanders. There was dulness on percussion, and loud bronchial respiration, with coarse crepitation in the lower two thirds of the left back, and a well-marked friction sound was heard three inches below the nipple on the same side. Some ægophony was also heard in the back. So far from being incommoded by his condition, the patient was not a little proud of it, and was anxious that all the students present should have an opportunity of feeling the movement of the rib while he coughed. The physical signs gradually diminished, the rib united to the cartilage, and the patient improved daily. He was discharged well, Oct. 20th.

In this case there was evidently a circumscribed pleurisy at the lower part of the left chest. The condition of the lung was not so clearly ascertained. Dr. M. thought it probable that the lower lobe was congested, but not inflamed, as the characteristic sputa of pneumonia were wanting.

Oct. 27th.—*Letter from M. Bouisson, of Montpellier, France, on the subject of Ether.*—Dr. Hodges read the following answer to the circular issued by the Ether Committee, which was just received, and which, he remarked, seemed worthy of notice, coming as it does from one of the earliest students of the subject of anæsthesia. M. Bouisson, soon after the general introduction of anæsthetic agents, published a large and elaborate memoir on their uses and effects, which to this day remains one of the most valuable we possess. Surrounded by influences calculated to prejudice him in favor of chloroform, it is pleasant to find a French surgeon acknowledging the perfect security of ether, even though inclined occasionally to incur the dangers of an agent the treachery of which he recognizes, and of whose frequently fatal effects he is fully aware.

"Montpellier, June 25th, 1862.

"I have myself never seen any case in which sulphuric ether was productive of injury. After sixteen years of hospital practice, I persist in the opinion that anæsthesia effected by sulphuric ether is of a value which it is requitable to lose by the use of chloroform alone. In availing myself of artificial anæsthesia, I have adopted an eclectic practice, making use of ether in all those cases where I have reason to fear the insidious activity of chloroform. The necrology of the latter agent is, unfortunately, already overfreighted, and I am afraid that in employing it exclusively, the risk is run of depreciating the use of all anæsthetics. Such a risk cannot be alleged against ether, and although slow in its effects, the security which belongs to its exhibition ought to preserve its use in the practice of surgery. I. Bouisson."

Oct. 27th.—*Abscess in the Liver.*—Dr. Minot reported the following case.

A married woman, 40 years old, entered the hospital, Aug. 30th, with general anasarca, and much prostration, complaining of pain in every part of the body. The patient was very stupid, and very little account of her previous condition could be obtained. The urine contained no albumen. Sept. 5th, a tumor was felt deep in the right hypochondrium, which was very tender on pressure. The next day she had a chill, followed by great prostration, but was revived by stimulants. The tumor increased in size, and was excessively tender. Sept. 23d, it felt as big as an infant's head. By Oct. 1st it had reached the surface of the abdomen, and pointed, the most projecting part being on a line drawn through the left anterior superior spinous process of the ilium and the umbilicus, and 2½ inches above and to the right of the latter point. Dr. Townsend, who saw the patient in consultation, punctured the skin, and a quantity of thick, greenish, offensive pus escaped. The discharge continued till Oct. 11th, when it ceased. The tumor is greatly diminished in size, and the edge of the liver can be distinctly felt below it. The woman is now up and walking about. There has been no jaundice.

Dr. Warren remarked on the rarity of idiopathic abscess of the liver in this part of the country. He had seen but a single case.

Oct 27th.—*Fracture of Vertebra through the Arch.*—Dr. J. Wyman exhibited two specimens of ununited fracture of the arch of the fifth lumbar vertebra. These were in addition to the four specimens described at a former meeting. Another specimen has been noticed by Dr David W. Cheever, Demonstrator of Anatomy in the Massachusetts Medical College, making in all seven instances in the different collections of this vicinity. This fracture does not appear to have been described in the systematic works.

The lower lumber vertebræ are especially liable to the accident in question, from two circumstances: 1st, from their peculiar structure; 2d, from the strain to which they are particularly exposed. The weakest part of the arch of a dorsal vertebra is its pedicle, and the strongest is on a line drawn between the upper articulating and the transverse processes. In the lumbar vertebræ, on the other hand, the pedicle becomes stronger, and in the fourth and fifth it is the strongest part of the arch. The weakest part is to be found on a line drawn between the lower articulating and the transverse processes, where the former with the spinous process are united with the rest of the bone by a narrow neck, which in some subjects is very slender.

When the vertebral column is bent forcibly backwards, the arch is strained in consequence of the spinous processes coming in contact, and is most liable to give way at the neck which has just been described. Those gymnastic exercises in which the body rests on a bar under the loins are favorable to the production of this injury.

The subjects from which the above specimens were taken were all from the dissecting room, and nothing is known of their history. The broken surfaces had all undergone the changes incident to fractures of long standing.

Dr. Wyman also exhibited a specimen of a second lumbar vertebra, both the lower articulations of which had been fractured near the middle, and remained ununited for a long time, as shown by the condition of the broken surfaces.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, NOVEMBER 13, 1862.

The Surgeon-General has kindly permitted us to publish the following report on Military Surgery, by Dr. Gay. We are happy to state that this valuable and practical paper will be printed by the authority of the State. Copies will be sent to each of the Massachusetts Regiments, and also extensively distributed throughout the Army.

Boston, October, 1862.

To the Surgeon-General of Massachusetts.

Dear Sir,—Allow me to present a few statements bearing particularly upon the surgical treatment of the wounded, which have been at different times suggested from actual observation, and by the reports of reliable persons and of soldiers.

It is well known that many of the sick have suffered through neglect and injudicious management that could not altogether be excused on the ground of some military necessity, and that vast numbers of the wounded have passed through prolonged suffering, and received needless mutilation in consequence of operations, not only inopportune as to the time of performance, unnecessary from the degree, extent or locality of the injury, but also ill-judged, mainly from an absence of that consideration which was due to the pressure and influence of surrounding circumstances.

The immediate treatment, the first dressings of gun-shot and other wounds, meaning thereby the application of water, bandages, plaster and lint, are of very great importance ; as at that time much may by a judicious course be accomplished and prevented, which at a later period may comparatively be of little avail. And, if some of these are improperly used, not only valuable time is lost to the soldier, but what was at first a trifling affair may be converted into a lingering and oftentimes dangerous sickness.

It may be generally stated, that this primary treatment should be as simple and easy to the patient as possible, as simple as the surrounding circumstances will allow.

The old dry dressing has been almost universally supplanted by the wet one, water alone, or with the addition of some other agent. So that, after a full examination of the wound and removal of the ball, clothing or any other remaining foreign substance, a compress of several folds of cloth, or a piece of spongio-piline, soaked in water and then squeezed so as not to drip, and placed upon and in the immediate vicinity of the wound, will almost always be found to be the most agreeable and beneficial application. It will be well sometimes to place a dry compress over the wet one, large enough to somewhat overlap it. Care should be taken that the compress is not too heavy, and that the temperature of the water should be regulated by circumstances. If the parts, where the shock has been great, and reaction is tardy, and has not come on to a sufficient degree, are more or less cold and inactive, then the water should be tepid or warm, otherwise gangrene may be hastened where the vitality is too much lowered to bear the stimulus of the cold.

By a judicious management of these water dressings, the comfort of the patient is very essentially increased, by lessening irritation, inflammation and swelling. If the compresses become considerably heated, measures should be adopted to have the water renewed frequently. From neglect or other causes, the renewal of the water has been omitted, so that in many cases no change has been made for two, three or more days. In most instances, the patient himself, with proper directions, could apply the water. It will be seen from the above that stress has been laid upon fresh water only, especially because on the whole it will be found the most preferable and easily obtained, though sometimes it will be advantageous in some stages to use an aqueous solution of opium, laudanum, arnica, rum and water, and infusion of hops or poppies, or other agents.

There is no excuse for the additional pain and discomfort, from the dry, stiff, hard and wrinkled compress and bandage.

The bringing together of wounds immediately by adhesive plaster, over the spot of entrance and exit, is not advisable, and only in very exceptional cases will it be attended with good results. A few gunshot wounds have looked as clean and almost as linear as pure incised wounds, and have united with the first dressing of plaster, without any discharge or sloughing.

Many gun-shot and other wounds, if let alone, will take care of themselves, and by this is meant that there are certain processes to be gone through with at the wound before cicatrization: and all interference with nature must be avoided. She may be assisted in an individual case, but must not be opposed.

It is of great value to know when not to do, not to interfere, and when to act.

There can scarcely be a doubt that the expectant plan, in a great many traumatic lesions, will be followed with as favorable results as the same course in medical diseases.

Connected with the water or other dressings, is the bandage used to keep them in place. It is known that much additional suffering has been frequently caused by the bandage, either too tightly applied at first, or tightened by the subsequent swelling. Sufficient allowance has not been given for the swelling which comes on, at variable periods, after gun-shot or other wounds, of greater or less severity, sometimes almost immediately, sometimes not for hours or days, according to the degree, extent and locality of the injury, and the reactionary powers of the patient. The swelling may be confined to the superficial or deep portions of a locality, or to both at the same time. If the wound is superficial, the swelling is not generally great nor very painful; but if the wound is deep, traversing a limb for instance, then the swelling involves the whole thickness of the limb, and is necessarily attended with more severe pain. The parts are tense and painful, from causes connected with the wound. If in this case a tight bandage is applied, as has been not unfrequently done, great needless suffering, irritation and inflammation are added. There has been altogether too much suffering of this kind. The soldier bears it as well as he can, supposing, of course, that it is wholly produced by the character of the wound.

The diversity of opinion, as to the question whether the wound should be enlarged by incision or not, may be traced to the circumstance of one surgeon finding relief occasionally in enlarging the original wound, where it and the swelling were merely superficial, while another surgeon has made an incision without any relief, because the swelling involved not only the superficial but deep regions. The external parts might have the painful tension removed by such an incision, but the benefit would not extend to the deep, swollen and constricted tissues.

To anticipate and avoid much of this unnecessary suffering, the bandage should be loosely applied, of just sufficient tightness to retain in place the necessary dressings. If a patient is to be removed any distance, and over a road where there will be much jolting, it must be applied more firmly, and full directions should be given to some one to examine and loosen it in some way, if there is an increase of suffering in consequence of the tightness.

The lint dressing particularly requires remarks in behalf of the wounded soldier. From what has been seen, and from the numerous complaints, it cannot be doubted that the abuse of this article has been very extensive, and to such a degree, that it would be more humane to altogether discard it, unless it can be employed with a much better judgment.

Too many wounds have had it rammed into them until they are tightly plugged, and then a tight bandage is applied over it, as if something more was needed to keep it in place. And all this has been done where there was no hæmorrhage, nor fear of any. It is not at all strange that the patient suffers greatly from this firm plug and additional constriction. Clothing, balls and any other foreign substance are removed from wounds as soon as can be, with the correct idea of withdrawing as much as possible every irritating cause; and yet the benefit from this action is immediately frustrated, for a new irritating substance is thrust in, and especial efforts are made to bind it there.

A clean, suppurating wound, perforating the cheek, has been seen, which had been stuffed several days with hard, dry lint, and which, on the removal of the lint, contracted one half in twenty-four hours. A colonel, with a wound of the sterno-mastoid muscle, also stuffed with lint, and so painful as to permit of but little motion of the neck, had almost instantaneous relief after the lint was removed and abandoned.

Many other cases were seen where the lint had become so adherent by the drying of the discharge about its edges as to require a long soaking with water and pulling before it could be detached, and this separation was followed by a free flow of the confined pus.

The lint arranged in cords, the size of lamp wick yarn, was also placed crosswise along the bottom of wounds, and then balls of coarse, dry lint pressed down upon them, all of which was removed when thought proper, by drawing upon the free ends of these cords, hanging loosely outside and near the wound.

Numerous other instances could be multiplied, sufficient to convince any one of the bad use to which this agent has been applied, and in such cases of course aggravating the suffering of the patient.

It is a matter of extended notoriety, that operations of different kinds have been performed, not only uncalled for by the nature, locality and extent of the injury, inopportune from the time of their performance, but also ill-judged from a disregard of all the concomitant circumstances which the case demanded.

To allude to no other, every surgeon will admit that a ligature of the carotid artery for a small, easily accessible wound of the edge of the tongue near its tip, was not only uncalled for but unjustifiable; the same may be said of an immediate amputation of the thigh for a wound of the popliteal artery, or the ligature of the principal artery of a limb for hæmorrhage a few hours after an amputation, or the exsection of the greater portion of the shaft of the humerus or femur, upon the battle-field, or an important amputation before reaction had come on.

Amputations, performed at an opportune time, may save a great many lives.

The mortality within a very short period after these operations has been large, owing in all probability not so much to the fact that an amputation has been done, but that it was attempted at a time when the system was the least able to bear it.

Amputations for injuries are less successful in their results, than for long-established diseases, because the system has received a serious shock, and has not constitutional force enough in some instances to bear up against it; the same result, and from the same cause, is seen in a less degree in the local death of the soft tissues and of bone, consequent upon injuries sufficient to produce that effect.

The military surgeon, however, must frequently act as circumstances dictate, and many limbs must be sacrificed, when more favorable auspices would justify and demand an effort to save them. If it is decided that an amputation is necessary, it must be done within a limited period, not too soon, while the system is still under the effect of the shock and before there are signs of increasing reaction, nor after inflammation and the so called irritative fever have become fairly established.

The opportune time for an operation is surely not when the state of the system is very seriously reduced, in a collapsed or sinking condition, from the effect of the injury. Symptoms showing that the system is rallying from the effects of the shock, and manifest in the comparative strength of the pulse, and other general indications, must influence every one in making up the proper decision.

Ether, particularly, and chloroform, *under certain restrictions*, are valuable agents in assisting and accelerating the reactionary powers of the system. In many cases there will be no recovery from the shock, no reaction, and this of itself is an imperative reason for abstaining from any operative interference. If in this absence of sufficient reaction, an operation of importance is performed, an unfavorable result is almost necessarily hastened.

The time of this reaction varies in different persons with the severity and locality of the injury, the degree of shock to the system, and the amount of reactionary power or vitality remaining. It may take hours, and even days. Therefore, because a primary operation, the one now alluded to, may be pronounced to be the proper one, it must not be supposed that even the so called primary amputation can be, or ought to be, performed *at any time* after the receipt of the injury. Safety to the patient demands that no operation of any magnitude should be attempted before there are signs of sufficient reaction, steady and not intermittent, nor after inflammation and the irritative fever are adding new trials to the patient's endurance.

It is true that sometimes amputations performed four, five or six days after the injury, and when the inflammation and fever are progressing, have ultimately been followed by recovery. But these cases are exceptional in their results, and may be explained by the fact that the powers of the system in individual instances have been ample enough to bear up, both against the effect of the injury and the additional shock of the operation at a very unfavorable period, but they should by no means be considered in any other light than an unsafe and dangerous practice.

The *exsection* of portions of the shaft of bones, varying in extent from two to six or more inches, has been attended with very great fatality. An injury from any agent sufficient to produce great comminution and splitting of the bone, requires a long deliberation of all the attendant circumstances before resort should be had to such extensive exsection as has been done on the battle-field, or in a crowded depot for the wounded. The warning, which experience has given to every surgeon, in extensive and severe injuries of the soft tissues, never to operate too near the seat of the injury in apparently sound and healthy portions, on account of the gangrene which is almost sure to follow in the immediate region of the lesion, should tell us still more strongly to beware about an operation too near a shattered bone, for fear of gangrene, or necrosis, of one or both remaining portions of the shaft.

A piece of necrosed bone four inches long has been seen, that was removed from the humerus of a soldier, several months after an exsection. Forewarned, let an extra caution be prominent, for the *future* as well as the *present*.

It is difficult enough and often impossible, in severe injuries requiring amputation, to say where the line of demarcation is between the skin that is sound and that about to die; and we must, for many reasons, expect to find still greater difficulty in tracing or fixing this line in bone. The state of the system, the amount of constitutional force affected by the injury, shows itself after these operations by such diminished vitality in the neighborhood of the injury, that gangrene follows to a greater or less extent in the soft parts, and in the bone also.

Exsection, for injury, of any considerable portion of the shaft of a bone, particularly the thigh bone, would be considered a very serious operation in civil practice, even when the patient is under the best hygienic conditions, and when one can command every comfort and the most improved surgical appliances. In the field, or crowded temporary hospital, the operation must be invested with a still more serious and dangerous character, for a great many reasons, the controlling influence of which should not be under estimated.

And then again, as was said, how is one to know that, in the exsection, the saw passes through sound and not through deadened bone? And we all know that the process of separation in necrosis is a tedious one, and with the suppuration from it and the soft parts is the liability to many troublesome complications.

Conservative surgery, within prudent limits, is valuable and praiseworthy, but an opprobrium when attempted in decidedly unfavorable circumstances. The *cui bono* of these extensive exsections is yet to be settled.

Then again, an operation, feasible upon the bones of the fore-arm or arm, might not be as feasible upon the thigh, or even the leg.

The exsection of the articulations in consequence of injuries, would probably be attended with more fatal results than the same operation for chronic disease, for the same reason that experience has shown that the ratio of mortality is greater in amputations after injury than after a long-established disease, because the system, besides the amputation, has the additional, serious and sudden shock from the injury. The unfavorable results that follow, may be traced more to the state in which the system is brought by the effect of the injury, than to the mere operation.

Let me add a word or two more in reference to the dressing of the stump after an amputation, which was accidentally omitted when allusion was made to the operation.

The following has been seen:—the flaps adjusted by sutures, then strips of plaster, then thick masses of dry, coarse lint, and over all a bandage. The line of approximation of the flaps was so much covered by the plaster as scarcely to admit of any exit to the secretions. The consequence was a swelling and pressure outward of the flaps by the pus confined internally. At the time of the renewal of the dressings, pressure was made to force out the remainder of the pus.

The danger of such a course is, of preventing union, by separating, and leaving a cavity between the flaps, and if the exit is not sufficiently free, for whatever is secreted within, then portions already united by granulations are separated by the pressure from distension, the support about the vessels is taken away, and the liability to subsequent hæmorrhage is very much increased.

Time and safety are gained by letting the pus escape freely as fast as secreted, and only such a degree of compression should be used as will produce an easy and steady apposition of the parts, so that union may proceed with as little interference as possible.

Lint, used as above, is not only heating and irritating, but it also adds an obstruction to the escape of the pus.

Very truly yours, Geo. H. Gay.

We gladly give place to the following communication, which undoubtedly contains a considerable amount of truth. It agrees, in the main, with our previously-expressed convictions. Still, we are not satisfied that abuses and neglect do not exist in some of our Government hospitals: indeed, we have positive knowledge that, within a very recent period, at least, they have existed. It cannot be possible for one gentleman, however industrious, to declare authoritatively, from personal observation, that the whole system is free from reproach. Doubtless there has been much injustice done by public rumor, and there has been too great a readiness to accept as true of all the hospitals what has been true of comparatively few. The only way to set the public mind entirely at rest on the subject is just that which the Sanitary Commission has so successfully inaugurated, namely, a complete system of repeated inspections by a body of disinterested, conscientious physicians, taken from the community at large.

THE HOSPITALS IN WASHINGTON.—From time to time, the public mind, naturally anxious for the comfort and welfare of our wounded soldiers, has been painfully disturbed by the numerous newspaper reports of "Hospital Abuse"; the vast majority of which prove, on investigation, to be totally untrue—and many of them would be more properly designated "abuse OF hospitals," than "abuse IN hospitals." Perhaps the experience of one who has had the advantage of some personal observation on the subject, may not be, at this time, inopportune.

What are the facts? Our nation, suddenly plunged in war, finds, after a series of bloody battles, its Capital thronged with 20,000 wounded soldiers—while it contains but one or two small buildings adapted to the purposes of a hospital, and those capable of containing but a few hundred of these many thousands. The exigency demands and energy attempts prompt provision for the present necessities and future comfort of this *army* of wounded. Churches are dismantled—portions of public buildings and whole blocks of private buildings are pressed into service. Empty barracks, constructed originally for soldiers in health, are improvised into hospitals, not because they are suited to the purpose, but inexorable necessity permits no other choice. These various buildings in Washington, without any previous adaptation to their present use, contain our twenty thousand wounded men. The number, within the smallest of these, is from one to two hundred, while in the larger it will range from one to two thousand. It were tedious to specify the almost infinite daily recurring minutiæ of labor, mental and physical, requisite to carry on, successfully to the patients and satisfactorily to the surgeons, one of the largest of these hospitals, even for a single day; and there are in the city some fifty of various sizes, but all requiring this constant care and attention of the corps of surgeons in charge of them. They also require the services of many hundreds of nurses, dressers, cooks, stewards and other attendants. It is the intention and endeavor of Government to have none in any of these capacities but such as are competent and faithful; none are for a moment retained when proved otherwise.

In conducting this large number of hospitals, it is not strange that an occasional inadvertence should *occur*; and when it does, the public are very apt to hear of it, colored with all the exaggeration with which *popular abuse* too often paints the naked fact. Those who have had the best opportunity for judging, are satisfied that of the many statements that have appeared in print, the greater portion have no foundation whatever in fact, or else are total misrepresentation of the truth. The origin of them may almost always be traced to some malingerer in the hospitals, who, being detected in feigning sickness, has been returned to his regiment, and revenges himself by stories of ill-treatment at the hands of his surgeon. This is perhaps the most frequent source of the abuse *of* hospitals; first started by the malingerer, believed by his credulous friends, and by them inserted in the public prints.

Another cause for the statement of supposed neglect, rests on as shallow a basis as the following: An *honest* and conscientious patient, whose self-limited disease having passed its climax, is slowing convalescing, thinks his attending surgeon does not understand his case, because "*he has for two days refused to let him have any more medicine*"! Grand opportunity, for the public "abuse *of* hospitals," where such neglect is permitted!

There might be added many similar cases, of constant recurrence in print; a full knowledge of which would have prevented their publication.

An exceptional case of incompetency for the important post of surgeon may and does occur; but the person, whoever he may be, is instantly removed. Casual inadvertences may and do happen; but prompt measures are taken to prevent their repetition. An unavoidable accident may delay the arrival of some article of hospital supplies, for which prompt requisition has been made to headquarters; yet the surgeon will generally be the scape-goat to bear the blame for a mishap beyond his control. But there is generally too much *esprit du corps* among surgeons in charge of the wounded, to allow any neglect of all available means that would tend to the welfare of their patients. It is the aim of Government to supply these hospitals with as able and competent a corps of surgeons as can be obtained. In furtherance of this purpose, there have been selected quite a number of surgeons of skill and experience from civil practice, who have temporarily left their homes, to contribute their services to the relief of their wounded countrymen.

The hospitals have also the important aid of the Sanitary Commission, whose philanthropic efforts are gratefully appreciated by all who have experienced their benefits. Also, through its various agents, it necessarily exercises a constant supervision over the condition of the patients, rendering the occurrence of neglect or abuse improbable.

In view of these facts, it will no doubt be a satisfaction to those, whose relatives and friends have gone forth to risk their lives on the battle-field, to know that if, by the fortune of war, they should suffer from wounds or disease, they will receive in the hospitals at Washington as humane and skilful treatment as could generally be extended to them in their own homes. And here it is but just to allude to the fortitude, resignation and even cheerfulness with which our wounded heroes endure and calmly submit to the most severe and painful injuries. The testimony of all surgeons who have had charge of them will abundantly corroborate the fact, that it is rare to hear a murmur escape their lips, with such patience do they bear the wounds that silently attest their devotion to their country. Daily and hourly being witnesses of their noble courage, is it reasonable to suppose that they, who are professionally devoting themselves to their relief, should fail to render them all the aid and comfort which skill and humanity can afford?

If the public were made acquainted with these facts, they would understand how absurd and groundless must be most of the newspaper articles respecting "hospital abuse," which unjustly tend to mar the hard-earned reputation of the disinterested corps of surgeons who constitute the medical staff of the hospitals in Washington.

J. P. Maynard.

We have been kindly furnished with copies of the following documents, which treat of topics of the most vital importance. We sincerely hope that this correspondence may lead to the much needed improvement referred to, in the surgery of the Army.

BOSTON, FRIDAY, OCT. 24th, 1862.

DEAR SIR,—The Medical Commission of the State of Massachusetts, having overwhelming evidence by their own observation and by reliable reports, that our sick and wounded require more careful attention and protection against neglect and the performance of needless operations, have addressed a letter to the Surgeon-General U.S.A., suggesting what they consider in some degree a remedy for the evils complained of.

They respectfully beg you to lend your authority and coöperation in carrying out the object.

(Signed)
DR. GEORGE HAYWARD.
" S. D. TOWNSEND.
" JOHN WARE.
" J. MASON WARREN.

DR. S. CABOT.
" GEO. H. GAY.
" R. M. HODGES.
" WM. J. DALE,
Surgeon-General Mass.

HON. E. M. STANTON, *Secretary of War.*

BOSTON, OCT. 24th, 1862.

TO BRIG. GEN. WM. A. HAMMOND, *Surgeon-General U.S.A.*

The Medical Commission of the State of Massachusetts beg leave respectfully to represent to the Surgeon-General of the United States, that they have had reason to believe that there are certain evils existing in the present management of the wounded on the field and in hospitals, which are capable, in some degree, at least, of being remedied. The present war, breaking out after a long and profound peace, uninterrupted, with partial exceptions, for more than two generations of surgeons, has found the profession quite unprepared, both by education and experience, for the practice of military surgery. In consequence of the very large number of surgeons immediately required for service, it has unavoidably followed, that a considerable proportion of them must not only be destitute of experience, but destitute also of that education on which experience is to be founded. They are incompetent as operators, and also incompetent to judge when operations are required, and at what time and under what conditions of the system they can be safely performed. Many of them, in common with the mass of mankind, labor under the delusion, that the main business of the surgeon is to perform operations instead of preventing them. Hence many young men have rushed into the army with the erroneous impression that it was a school for surgery, principally because it afforded opportunity for operations, especially amputations, and for learning how to do them well and adroitly, instead of learning how to prevent the necessity of doing them at all.

We have reason to believe that the profession has been disgraced by many of its members, who, having no just conception of the sacred duties of their calling, have entered upon it from wholly selfish and mercenary motives.

It is therefore recommended that the Surgeon-General U.S.A. be respectfully requested to appoint a sufficient number of surgeons, who shall be men of acknowledged ability and experience in surgical injuries and operative surgery, to each Corps d'Armee, Division, Brigade and depot for the wounded, whose duty shall be a general supervision of the wounded, in examining personally, so far as can be done, all the wounded, whether on the field, during or after a battle, in a general or other hospital, or at any depôt for the wounded, and to decide as to the primary surgical treatment in the cases presented; and, if any operation is deemed necessary, to direct a suitable person to perform it, and at the proper time; and, furthermore, that no important operation, such as amputation of the large limbs, ligature of any of the principal arteries, or excision of bone, should be performed, except under great sudden emergency, till one or more members of this supervisory board shall have given his or their approval.

(Signed)
DR. GEORGE HAYWARD.
" S. D. TOWNSEND.
" JOHN WARE.
" J. MASON WARREN.

DR. S. CABOT.
" GEO. H. GAY.
" R. M. HODGES.
" WM. J. DALE,
Surgeon-General Mass.

SURGEON-GENERAL'S OFFICE, WASHINGTON, D. C., OCT. 28th, 1862.

GENTLEMEN,—I have received your communication relative to the incompetency of many of the medical officers in the service of the United States.

From my own personal observation, as well as from the uniform evidence of Medical Inspectors' reports, I am able to confirm all that you can allege.

I have made every effort to obtain a sufficient number of qualified medical officers to superintend the operations on the battle-field, but thus far without success. If you can aid me in the matter, I shall be very much obliged to you.

I am free to confess that first-class surgeons have not come forward for field service with the alacrity that is to be desired, and I am sorry to see so little stress laid, in many of the States, upon the qualifications of regimental medical officers.

Begging you to accept my thanks for your interest in the matter, and hoping you may be able to afford me assistance,

I remain, very respectfully, your obedient servant,
(Signed) William A. Hammond,
Surgeon-General U.S.A.

Dr. George Hayward, &c. &c.

The following correspondence is interesting in connection with the detention of the transport steamers, containing Massachusetts troops, in our harbor, by the gale of last week. The steamers were disgracefully over-crowded, and the fact should be generally known, that public opinion may, if no other influence can, prevent the repetition of such an outrage. At the instigation of the State Authorities, the evil has been probably remedied, by putting some six hundred of the soldiers on board of an additional steamer. A bright sky and a fair wind have given a more cheerful tone to their final departure, and we hope the voyage may be a short one.

To Surgeon-General Dale.

We, the Surgeons of the 43d, 45th and 46th Mass. Regt's, desire to represent, that, in consequence of the long-continued storm, and the discomfort arising from sea sickness and other causes, want of proper ventilation, over-crowding of quarters and darkness—also the mental depression consequent on the long confinement, the saturated condition of the clothing, and the unhealthy emanations therefrom, and the impossibility of attending to personal cleanliness and to the ordinary calls of nature, it is no longer safe to remain on board in the present condition. We are unanimously of the opinion that nothing less than the removal of five hundred men from each vessel will render the condition of the ship proper or safe to go to sea.

James H. Waterman, M.D., *Surg. of 46th Reg't.*
Samuel Kneeland, M.D., *Surg. of 45th Reg't.*
A. Carter Webber, M.D., *Surg. of 43d Reg't.*

Boston Harbor, on board Ships Mississippi
and Merrimac, Nov. 9th, 1862.

To the Adjutant-General.

Sir,—I have this day carefully inspected the condition both of the Merrimac and the Mississippi transport Ships, laden with Massachusetts troops. I endorse fully the opinions of the surgeons above expressed in regard to the necessity of speedy relief, and recommend that five hundred men from each ship be transferred to other quarters.

If the weather to-day had been clear and pleasant, the necessity of a change from the plan decided upon last night would have been obviated. In my opinion, the continuance of the storm, the exposure on the deck, the crowding in the compartments, and the unhealthy condition of the atmosphere from this cause, make it necessary that the relief should be immediate and effectual.

Wm. J. Dale, *Surgeon-General.*

On board Mississippi, Boston Harbor,
Nov. 9th, 1 P.M., 1862.

On board Nantasket, Sunday, Nov. 9th, 1862.

The within opinion of the several Surgeons of the 43d, 45th and 46th Regiments, and of Surgeon-General Dale, was unqualifiedly endorsed by Capt. Baxter, of the Steamer "Mississippi," and conditionally endorsed by Capt. Sampson, of the Steamer "Merrimac," and I endorse it without qualification.

WM. SCHOULER, *Adj't General.*

To His Excellency JOHN A. ANDREW, *Governor*
and Commander in Chief.

DR. HOLMES delivered the introductory address at the Medical College on Wednesday last, on account of the indisposition of Dr. Bigelow, on whom the duty devolved in turn. The first half of the lecture was mainly historical and full of interest. Having had in his possession, through the kindness of Hon. R. C. Winthrop, a collection of valuable manuscripts belonging to his distinguished ancestor, Governor John Winthrop, he was able to give some details of the medical practice of the time of the early history of New England, which were extremely interesting and entertaining. Among these papers was a formula of directions for the treatment of diseases, prepared for the Governor by Dr. Edward Stafford, of London, showing him to have been a man of much sagacity and practical wisdom. Following this historical vein, Dr. Holmes gave graphic sketches of some of the fathers of medicine in New England, and, coming down to more recent times, somewhat elaborately portrayed the marked peculiarities of three physicians practising in Cambridge in the time of his boyhood. He aptly used the striking characteristics of each as illustrating distinct types of physicians, employing them to inculcate valuable practical lessons. He sketched a vivid picture of the medical scholar and the medical practitioner, showing how helpless a man of mere erudition may be in actual practice, and giving point to his remarks by an amusing anecdote of the physicians he had last spoken of. He impressed upon his hearers the great importance of the practical study of disease, assuring them that the best part of a student's education is at the bed-side. He did not, however, depreciate the study of books, but said that it should be the complement of clinical study. The lecture concluded with some most excellent practical advice on the relations of the physician to his patient. The discourse was enlivened throughout by the Professor's peculiar humor, and enriched by his vivid imagination, which made doubly impressive the truth pervading the whole. It was worthy of a larger audience than the lecture-room could hold, and we earnestly hope it may be given to the public in print.

DEATH OF DR. CORDEIRO.—Dr. Joaquin Barbosa Cordeiro is well remembered here as a student of medicine and a graduate of the Medical School of the University in the class of 1854. He was a native of Brazil, but had acquired the English language so as to speak it with remarkable facility. On leaving the University he returned to his native country, where he soon became engaged in practice, first in Rio de Janeiro, and afterwards at Ceara. He gained rapidly in reputation, especially in the treatment of yellow fever and cholera, in which last disease he had the credit of saving many patients after collapse had occurred. He devoted himself with great zeal to the care of patients affected with this disease, laboring almost without help in a hospital of which he had charge. He himself was at last attacked, in the month of July last, and died at the post of duty where he had fearlessly and patiently labored.

Dr. Cordeiro married a Boston lady, and leaves her with two children in a distant land. It will, we hope, be grateful to her to know that she has the sympathy of all who remember her husband, and who honor the devotion to duty which cost him a life promising to be of extensive and prolonged usefulness in his profession.

Death of Sir Benjamin Brodie.—We regret to announce the death of Benjamin Collins Brodie, one of the most distinguished names in the annals of British surgery. He was born at Winterboro', Wiltshire, in 1783, educated in a London free school and at St. George's Hospital, where he became the successor of Sir Everard Home as surgeon. In 1811 he received for his admirable physiological papers the Copley medal of the Royal Society. In 1819 he was appointed Professor of Anatomy in the Royal College of Surgeons, and in 1827, on the death of Sir Astley Cooper, became surgeon to the royal family, and attended King George IV. in his last illness.

In 1850 he received the degree of D. C. L. from Oxford. His baronetcy, bestowed upon him by William IV., dates from 1834. On the accession of Queen Victoria to the throne he was retained as "Sergeant Surgeon" to the royal family, and was till his death, October 21st, a personal friend of the Queen's. His last official appointment was the Presidency of the Royal Society, to which he was elevated in 1858. He was married in 1818, and leaves a widow and two sons—Benjamin Collins Brodie, Professor of Chemistry in the University of Oxford, and Rev. William Brodie, a clergyman of the Established Church.

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, November 8th, 1862.

DEATHS.

	Males.	*Females*	*Total.*
Deaths during the week, ...	36	33	69
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	33.7	34.0	67.7
Average corrected to increased population, ...	..	..	74.63
Deaths of persons above 90, ...	..	0	0

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
15	1	2	5	2	0	0	0	0

Books and Pamphlets Received.—The Action of Medicines in the System. By F. W. Headland, M.D., London. Fourth American Edition. (Lindsay & Blakiston.)—A Practical Treatise on Dental Medicine. By Thos. E. Bond, A.M., M.D., &c. Third Edition. (Lindsay and Blakiston.)—Annual Report of the Board of Regents of the Smithsonian Institution for the year 1861.—Dentition and its Derangements. By A. Jacobi, M.D., New York.—Annual Report and Catalogue of the New England Female Medical College.

Married,—In this city, 5th inst., James C. White, M.D., to Martha A. Ellis, daughter of Jonathan Ellis.

Died,—At Camp Meigs, 11th inst., of apoplexy, Dr. Deodat Mignault, aged 29, formerly a successful practitioner of medicine in Lowell.—At Hagerstown, Md., 1st inst., Dr. Samuel Lee Bigelow, Medical Director for Gen. Franklin's Corps in the Army of the Potomac.—Found dead, on the 5th inst., Dr. William S. Saunders, of Sturbridge. The cause of his sudden death is supposed to have been disease of the heart.

Deaths in Boston for the week ending Saturday noon, November 8th, 69. Males, 36—Females, 33. Accident, 2—inflammation of the bowels, 1—inflammation of the brain, 2—bronchitis, 2—cancer, 1—cholera infantum, 1—cholera morbus, 1—consumption, 15—convulsions, 3—croup, 2—debility, 1—diarrhœa, 3—dropsy, 3—dropsy of the brain, 2—scarlet fever, 5—gout (of the stomach), 1—disease of the heart, 2—infantile disease, 2—insanity, 1—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 2—marasmus, 1—old age, 1—paralysis, 2—disease of the spine, 1—disease of the stomach, 1—suicide, 1—teething, 1—unknown, 7.

Under 5 years of age, 23—between 5 and 20 years, 6—between 20 and 40 years, 17—between 40 and 60 years, 10—above 60 years, 13. Born in the United States, 44—Ireland, 18—other places 7.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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EXCISION OF A LARGE UTERINE POLYPUS.

[Communicated for the Boston Medical and Surgical Journal.]

Mr. Editor.—The following case may possess interest, as recording the successful removal of one of the largest fibrous polypi, by direct section of the pedicle.

On 8th September, 1859, I was called to Mrs. W., aged 53, mother of six children, the last aged 7 years. She stated that there was a substance within the vagina, occasioning painful sense of distension and bearing down, with dysuria and sometimes complete inability to pass water, except by aid of the catheter. Five years ago she had an obstinate attack of flooding, previous to which the menses were normal, but ever since she has suffered more or less from menorrhagia, and for the last nine months hæmorrhages have occurred as often as every fortnight, with profuse watery discharges, more or less offensive, in the intervals.

The substance in the vagina, first discovered two years previously, had gradually increased up to the time of my visit, and then a portion protruded so as to be visible externally. She had suffered intensely for the last two or three months from facial neuralgia, and complained of weakness and inability to take exercise without local (pelvic) suffering. Her appearance was anæmic and somewhat œdematous. Pulse was 88, full, but very soft. Upon examination, the protruding substance presented itself, ash-colored and sloughy in appearance, distending the rima vulvæ.

Passing two fingers by the side of the protuberance, I found the pelvis occupied with a large tumor, but no attachment could be discovered, nor could the os uteri be reached. The uterine sound, bent to a large curve, was introduced over different aspects of the tumor to a distance of six inches, but the pelvis was so completely filled that I could not move the sound laterally, between it and the tumor, so as to define the bond of connection between the latter and the body. An attempt to introduce the hand elicited so much complaint that I desisted, and applied a delicate pair of obstetric forceps which discovered sufficient mobility to indicate that its attachment was only by pedicle. During the examination a muco-gelatinous clot escaped, together with one or two ounces of offensive serum tinged with blood.

I pronounced the growth polypus, and advised its immediate removal.

I did not see the patient again till 19th December, 1859, when I was requested by her physician to operate if I still judged the case suitable. I found the patient much weaker than at the previous visit, pallid and emaciated; pulse 130 and thread-like. She had just emerged from a protracted recurrence of hæmorrhage. The tumor had obviously increased in size, and was now easily felt through the attenuated abdominal walls; the protruding portion was lacerated, grey and putrid. Considering that she could hardly survive another attack of hæmorrhage in the state in which she then was, and that she was liable to such attack any moment, I acceded to her wish for the operation.

The bowels having been moved by castor oil taken the preceding evening, and brandy having been administered and the bladder emptied by the catheter, I placed the patient on her left side and applied Zeigler's obstetric forceps over the tumor, hoping to be able to extract it so far as to bring the pedicle within reach; but they repeatedly slipped off without bringing down the growth in any perceptible degree. This accident was occasioned partly by the solidity of the mass, which prevented the blades sinking in, and partly by the blades themselves being of insufficient length to admit of their points reaching beyond the greatest diameter of the tumor.

Ether was then administered, and I introduced my left hand between the hollow of the sacrum and the tumor until I touched the pedicle. I then passed up Simpson's polyptome, the stalk made long, and bent to conform to the outline of the tumor, and hooking it around the pedicle, divided it. This part of the operation occupied more time than would be supposed, for the size of the pedicle so nearly filled the hook, or cutting part of the instrument, that it was very difficult to apply a sawing motion, except to a very limited degree, and simple pressure failed to effect the severance.

Extraction with the obstetric forceps was once more attempted, but with no better success than before. I then applied a pair of long crotchet forceps, which took an unyielding hold, and by patient efforts, in which, at last, my whole strength was employed, while pressure was made upon the hypogastrium, and the perinæum supported, extraction was accomplished without injury to the parts. The pedicle was then drawn down by forceps, until the free extremity could be seen by separating the labia; to this the solution of perchloride of iron was applied to arrest some oozing; compresses were placed above the pubis and to the vulva, and secured by a T bandage. The patient was then moved into an easier position, and after recovering from the effects of the anæsthetic, expressed herself as very comfortable.

The tumor proved to be a dense fibrous polypus, and divested of the disintegrated fragments on its lower segment, it lacked only half an ounce of three pounds in weight. Its outline presented a pretty accurate mould of the pelvis; its longest circumference was 18¼ inches—shortest circumference, 14½ inches. The pedicle appeared to be a little over an inch in length. It was severed close to the tumor, where it was inserted in a narrow sulcus, at which point its diameter was about three quarters of an inch; but its attachment to the uterus was very broad, where it was inserted or merged into the anterior wall. The os uteri was open so as to admit two fingers easily; the cervix was obliterated. The uterus seemed heavy, as if from increased thickness of the parietes; the interior, in size and in roughness, resembled somewhat the interior of one of the ventricles of the heart.

During the manipulations, several dark, stringy sheets of fibrin and a quantity of watery discharge came away, but the actual loss of blood from the operation did not exceed two ounces. I was assisted by her physician, Dr. Keen, of Gorham, Me., and my student, Mr. A. Barss. Her recovery was uninterrupted. The neuralgia disappeared, and she is now in the enjoyment of perfect health. There has been no recurrence of hæmorrhage, nor yet of the catamenia.

Since the occurrence of the preceding case, I have on several occasions removed uterine polypi of smaller size, by section of the pedicle, and have never had any troublesome bleeding in consequence. S. Fitch, M.D.

Portland, Me., Nov. 1st, 1862.

DIARY OF A BRIGADE SURGEON, ATTACHED TO THE BURNSIDE EXPEDITION.

By James Bryan, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

> "I come no more to make you laugh; things now,
> That bear a weighty and a serious brow,
> Sad, high, and working, full of state and wo,
> Such noble scenes as draw the eye to flow,
> We now present."—*Shakspeare.*

The heats of summer, the mists of autumn, and the frosts of part of winter, had been passed in the camp, on the tented field. The examination for the rank of Brigade Surgeon had been passed at the Capitol some three months since, two of which were spent in camp voluntarily, in order to become more familiar with the workings of camp hospitals, according to "Regulations." This sacrifice to a thirst for knowledge cost me dearly; for it sent me home about New Year's to wear out a raging typhoid pneumonia. During my convalescence, I received orders from the Medical Headquarters of the Army of the Potomac (Dr. Tripler), to report myself to General Burnside at Annapolis, for duty on his staff. Time passed by, and nothing was heard from the "Burnside Expedition." At length, having obtained sufficient health and strength, I reported myself at Washington, and was again ordered to report to Gen. B.'s headquarters. Through the politeness of Maj. Belger, of Baltimore, (U. S. A. Q. M.), I was transported to Fortress Monroe, where I met the polite and gentlemanly but now lamented Capt. Talmadge (U. S. A. Q. M.). After a dreary delay for fair winds for more than a week, we at length proceeded down the coast, doubled Cape Hatteras, and passed up Pamlico Sound, to the romantic island of Roanoke. My diary begins at this point.

Saturday, March 1st, 1862.—Anchored in the Sound, near the island of Roanoke, about 6, P.M., on board the Steamer Chancellor Livingston. We left the "Swash" this morning, about 11 o'clock. We had crossed over the sand bars the day before in another vessel, and had observed the terrible dangers which the indomitable General had braved in conducting the vessels of his expedition through these shallow, turbulent and deceitful waters and sand bars. They embody, to the classic eye, a very close resemblance to the ancient Scylla and Charybdis; the fairest and most serene sky being accompanied with a never-ceasing roar of these restless waters, the spray of whose waves literally fling their crests to heaven. Two forts were seen in the distance, manned by Union soldiers, and commanded by Gen. Williams—but we must not stop to describe what does not belong to our province.

Sunday, 2d.—Landed and met Dr. Church, Medical Director of the expedition, who introduced me to Gen. Burnside. The latter introduced me to Generals Foster, Reno and Parke. Being appointed to the staff of Gen. Parke, he invited me to call at his headquarters, and make them my home, till suitable accommodations could be obtained. The day was spent in visiting, with Dr. Church, some of the hospitals on the island, and examining, with the attending Surgeons, some of the more interesting surgical cases.

Monday, 3d.—Visited, with Dr. C., several important cases in the hospitals of the 3d Brigade; among which was private ———, of the 9th New York Reg't (Hawkins's Zouaves), who had received a bullet wound in the left thigh, beginning on the outer side, about three inches above the knee, and extending upwards and inwards, until lost among the muscles and other tissues, where the bullet is still lodged. Two weeks after the occurrence of the wound, secondary hæmorrhage took place, for which the femoral artery was taken up, near the profunda. Three days afterwards, bleeding occurred from the incision, to stop which the iliac artery was tied. This operation arrested the flow of blood for about twelve hours, when the femoral was again taken up with the same effect; this was the day before yesterday. Drs. Humphreys, of Philadelphia, and J. P. P. White, of New York, were the Surgeons of the 9th New York.

Tuesday, 4th.—Assisted Dr. Church in taking up the femoral artery again, in the above case; and visited with him the hospitals at camps Burnside and Foster, about two miles further up the island. Saw many wounded and other patients, with Dr. Cutter, Surgeon of the 21st Mass., and Acting Brigade Surgeon to Second Brigade, Gen. Reno. Dr. C. is the author of one of the earliest and most popular school works on physiology.

Dr. Church is trying to persuade me to remain on the island as Surgeon to the post, to which I object, being desirous of accompanying the expedition now fitting out.

Wednesday, 5th.—Dined with Gen. Parke, and being storm-bound, slept at his headquarters.

Thursday, 6th.—Visited the upper hospital of the 3d Brigade, under the care of Dr. Storrs, of the 8th Connecticut. The cases are chiefly of typhoid and remittent fevers. This hospital is well appointed, for about forty beds. It was well supplied with medical stores, left by the rebels.

Friday, 7th.—The following "Order" was issued by Gen. Burnside :—"Dr. Bryan, Brigade Surgeon, will remain on Roanoke Island and take charge of the Medical Department of the Post."

Saturday, 8th.—Came ashore with our baggage, on the steam tug J. P. Levy, in company with Gen. Burnside and Gen. Reno. The two Generals were enthusiastically cheered, as they passed the vessels, crowded with their men, for the expedition to Newbern.

Sunday, 9th.—Active preparations for the departure of the expedition.

Monday, 10th.—General Burnside and staff went on board the "Alice Price." The forces of his expedition are all now afloat on the Sound. I remarked to the General, that the force under his command was as large as the whole standing army of the United States was, previous to the breaking out of the rebellion. He replied, that in future, the Government would require a much larger standing army. I am busy in reorganizing the hospitals which have been deserted by the departure of the regiments and their medical officers, and we are consequently in great confusion. Drs. Storrs and Potter have left the two hospitals of the 3d Brigade without successors. Dr. Cutter has left those of the 1st in the same condition. The medical stores and kitchen utensils have been generally carried off. Dr. Squires, of the 89th New York, remains with me, and has shown himself a very efficient officer in this emergency. By attending to the nurses, rations and patients of the 2d and 3d Brigade hospitals, he has assisted me very much in supplying their immediate demands. Dr. Humphreys, of the 9th New York, has also been actively engaged in the same service.

Tuesday, 11th.—I this day appointed James H. Noyes, M.D. (Hospital Steward of the 6th New Hampshire), to act as Assistant Surgeon in the hospitals of the 3d Brigade. Surgeon Wm. A. Tracy, of the 6th New Hampshire, has leave of absence for sixty days, on account of sickness. Col. Hawkins, of the 9th New York, has been appointed military commander of this post.

Wednesday, 12th.—On the recommendation of Surgeon Tracy, I appointed Dr. Hiram Dow, of the 6th New Hampshire, to act as Assistant Surgeon in the lower hospital of the 3d Brigade.

Saturday, 15th.—The following is a copy of my letter to the Surgeon-General, from this post.

Medical Headquarters, Roanoke, N. C.,
March 15*th*, 1862.

C. H. Finley, M.D., *Surg.-Gen. U. S. A.*

Sir,—It becomes my duty to report to you, that since my last communication, General Burnside has left the Island of Roanoke with a force of over 15,000 men—leaving three Regiments on the island. About forty of the wounded of the late battle have left this place, within the last few days, for the North, under the care of a Massachusetts physician, Dr. Hitchcock—leaving in the Brigade and Regimental hospitals, about 350 sick and wounded. General Burnside, by an Order dated March 7th, appointed me Post Surgeon of Roanoke. In addition to the three regiments—which are the New York 89th, New York 9th and New Hampshire 6th—left here, there are one or two gunboats, and over thirty transports, on the Sound; whose sick are attended to by the Surgeons of the island. I am happy to say, that since the departure of the expedition for Newbern, I have been enabled to reorganize the post hospitals, in a satisfactory manner. Great complaint was made, on my arrival, of the paucity of Surgeons in the division. Several were sick from over-work, and at least one had died from over-exertion. One of the sick has obtained leave of absence for sixty days, to recruit his health (Dr. Tracy, of the 6th N. Hampshire). There are six well-built hospital-barracks on the island, left by the rebels. Four of them are under the charge of two of the Regimental Surgeons, their assistants taking care of the regiments; and two of them are under the care of two well-educated physicians, whom I have appointed from the ranks, to act as Assistant Surgeons. There is also one Medical Cadet on the island, doing good service in one of the larger hospitals. The number of sick in the Brigade hospitals is rapidly diminishing, and many are already convalescing. I contemplate, as fast as the beds in Brigade hospitals are vacated, to fill them with patients from the Regimental hospitals, and in this way, gradually, if possible, to abolish the latter. I have no reason to believe that the post will be an unusually sickly one, during the spring and summer months, though experience may prove the contrary. I am engaged in making out a detailed statement of the sick and wounded of the post, which will be transmitted to you in a few days. I would respectfully urge upon your consideration, the propriety of appointing additional Surgeons or Assistant Surgeons for this post.

Respectfully your obedient servant,

James Bryan, *Post Surgeon Roanoke.*

ON THE DISINFECTING TREATMENT OF TYPHUS, ERUPTIVE AND ENTERIC.

By John Hjaltelin, M.D., Inspecting Medical Officer of Iceland.

It has fallen to my lot to witness and treat one of the most dreadful epidemics of typhus that ever visited Iceland. The disease began in the northern part of this island during the winter of 1857–58, and was thence apparently communicated by contagion to the eastern, western and southern districts of the country. During the winter of 1857 about ninety cases of this fever came under my observation, and it presented sometimes the character of exanthematous typhus, and sometimes of typhoid or "typhus abdominalis;" but although the sickness abated in the following summer, it again appeared in the autumn of 1858, and raged during the whole winter of 1859, and did not even cease in the summer months of that year, but continued its ravages through all the seasons of 1859 and 1860. In those two years no less than 900 cases came under my treatment, out of a population of about 10,000 inhabitants, although of this number there were many patients that I had no time to register. When the fever broke out in a farm or cottage, it generally attacked one person after the other, until most of the inmates of the house were infected; and it very often happened that strangers stopping in a house thus infected, contracted the disease. It was evident, therefore, that it was highly contagious.

In the beginning of 1860, the same fever was very often accompanied by malignant dysentery; and at this time also, when by far the greater number of the infected were suffering from typhoid fever, Asiatic cholera made its appearance, and was accompanied by rice-water evacuations and cramps, but happily, it was only sporadic, and did not spread by contagion. During the last winter, 1860–61, the typhus fever was decreasing, although it still displayed its former malignity, and was attended, especially in the eastern part of this country, by great mortality. In some parishes of this part of Iceland, one-tenth of the inhabitants fell victims to the disease, a catastrophe which seems attributable to there having been an entire deficiency of medical men, and medical aid. The same phenomenon was observed in many other parts of our country, so that we have a strong argument against those who are of opinion that medical aid has very small influence on the mortality of malignant fevers.

In the last winter mentioned, about 122 cases of typhus and typhoid fever came under my treatment, and although the disease was becoming more and more sporadic, it still preserved the same characters of malignity and contagion as it had shown in former years. In the beginning of the spring, cases of malignant cholera seemed to gain ground, and were generally more common than the typhus itself, but the disease did not spread, and was limited to some fishermen's huts.

From this short review it will be seen, that, during the years 1858–61, this island was visited by three most malignant diseases, —viz., typhus and typhoid fever, dysentery, and sporadic cholera; happily, however, this last disease did not spread by contagion, although a few cases had all the symptoms of true Asiatic cholera, and in a few days terminated fatally. In respect to the probable causes of these malignant diseases during the aforesaid period, I shall now make the following remarks.

In the years 1856 and 1857, an epizootic of a special kind visited this island. This epizootic was nothing else but common sheep-scab; but, unhappily, there arose a prodigious dispute about its origin, and about what was to be done. Some, who believed that the disease was imported with some sheep from Scotland, desired to cut the matter short by killing all the infected sheep; while others (and amongst these were the veterinarians and myself), proposed that an attempt should be made to cure them, believing that the disease resulted only from the close packing of the poor animals in the winter, when generally little more than two square feet are allotted to each. But although the veterinarian or curing party were able to prove that their principles would lead to the happiest results, they were, nevertheless, compelled to succumb to their antagonists—the slaughtering theory (having been practised in the former century when the same disease made its appearance) had, in spite of its sad result, been inherited by the people, and was destined finally to prevail. It was supported also by the governors of the island; accordingly, no less than 200,000 sheep, many of which were quite sound, fell victims to the adoption of that stupid and barbarous theory.

In the beginning of this madness—for it was really a slaughtering madness—I had foretold that this proceeding would most likely lead to fearful consequences, especially on account of the great masses of meat heaped together in the small storehouses that are commonly attached to the Icelandic farm, the single apartment of which is used as a parlor, diningroom and bedroom. I supposed —and experience showed that I was right—that my countrymen's uncleanliness, and their bad method of salting meat, would lead to the most dangerous consequences; and that so protracted a deprivation of sheepmilk, butter, and cheese, might not only be attended by a deficiency of healthy and nourishing diet, but also give rise to famine.

The sheep killed amounted in number to about one-third part of those contained in the island, and were intended to supply twelve months' nourishment to about 10,000 men. So convinced was I of the injurious consequences of this foolish enterprise, that I wrote to the Board of the Sanitary College at Copenhagen, predicting what would happen if the Sheriffs of this country—who were its authors and executors—were not to be deterred from its prosecution. The Danish government upon this, enjoined them to desist; the order, however, arrived too late, the slaughter having been already executed during the autumn of 1857 and the following winter.

Meantime, my predictions were realized. People coming from the country, where large stores of salt provisions existed in great abundance, informed me that the odor of rotten meat was in many houses insupportable; they declared that they could neither stay nor sleep in them, and a short time afterwards I heard that typhus and typhoid fever had broken out in several parishes of the north, and both these diseases were subsequently extended by contagion to the southern districts.

During the winter the peasants came down from the highland districts to the fishing places near Reykjavik, and the surrounding districts. In many of these persons the malady already existed in its latent form. On arrival, they sickened and spread the fever in the fisher cabins, which were the more susceptible to its influence, as they had been overcrowded during the winter of 1858. From this time the disease advanced from hut to hut, until the majority of them were infected by its virulence; the most crowded huts were of course infected first and most severely; but by and by the better houses became infected also. Towards the end of the winter of 1858 the mercury sank to 4° below zero, Fahrenheit, and continued there for several weeks. It was very remarkable to see how the typhus was for a time arrested by the severe cold, but re-excited when the temperature grew milder. This fresh outbreak continued until the end of May, at which period it ceased or abated, to reappear in autumn.

Before proceeding to my treatment of this epidemic, I will in a few words describe the ordinary symptoms exhibited in each form of the fever—viz., in the typhus and the typhoid.

I. *Typhus.*—The symptoms of the first stage were, generally, diminished muscular strength, giddiness, aching in the back and limbs, weariness, unrefreshing sleep interrupted by unpleasant dreams, loss of appetite, constipated bowels, intercurring congestions of the head, accompanied by flushing of the face, sometimes followed by epistaxis, or, in females, by slight menorrhagia, white tongue with some flow of saliva during sleep, thirst, a certain amount of cough, and more or less oppression about the epigastric region. This stage generally lasted a week, and occasionally twelve days, although it was frequently only of from three to five days' duration.

The second stage of the disease generally commenced with a succession of mild or severe shivering fits, with more or less distinctly-marked symptoms of catarrh, inducing, perhaps, the expectation of rheumatic or catarrhal fever. At the same time, cough, variable in its degree of acuteness, was also present; the respiration was hurried and often interrupted by sighs; the skin was hot and dry; the pulse very frequent, ranging from 100 to 130 in a minute; the tongue covered with yellow or white fur. The preceding symptoms were usually attended by severe cephalalgia, throbbing in the temple, suffusion of the eyes, and flushing of the face. Early in this stage the muscular strength was much weakened, the patient being unable not only to leave his bed, but even to raise himself from the pillow. When this stage had lasted for two or three days, the catarrhal symptoms, such as the cough and the oppression of the breast, became generally aggravated, and with them the fever itself. At this time there was almost constantly seen an eruption of the skin, which consisted of small roundish or irregular spots, of a dingy-red color, closely crowded together, and somewhat resembling flea-bites, but without a dark point in the centre. This eruption commonly appeared first on the chest and on the neck, but afterwards on the shoulders, fore-arms and legs. When this eruption was of a bluish or dark color, and formed large irregular spots, I was always pretty sure that the case was a malignant one; but when the spots were small and of a brownish or dingy-red hue, the prognosis was far more favorable. After the outbreak of this eruption, the feverish symptoms were for a short time alleviated, the pulse was not quite so frequent, and the catarrhal symptoms, with the oppression of the chest, subsided; but this seeming alleviation was of brief continuance, as this stage in two or three days commonly passed into the third stage, or "stadium nervosum" of the German physicians. Some patients did not survive this stage, but succumbed to supervening phrenitis or pulmonary apoplexy. In those who survived, this stage was not unfrequently protracted to five or seven days, and during this period the amount of urea in the urine was in the majority of cases augmented.

The third stage was characterized by nervous symptoms; the patient became debilitated, his muscular strength was quite gone, and he sank into a state of continual delirium, stupor, or coma, from which he could hardly be awakened by cold-water affusions, and, even when this could be effected, he soon relapsed into stupor. The other symptoms in this stage were convulsions, hiccough, involuntary evacuations of fæces and urine, trembling of hands and legs, spasmodic and difficult deglutition, and sometimes complete strangury, which could be removed only by the catheter. Persons who did not survive this stage died of nervous exhaustion, especially from paralysis of the respiratory nerves; dry, darkly-furred tongue, weak and accelerated pulse, cold extremities and facies hippocratica, announced approaching death.

The duration of this stage was generally limited to four or perhaps seven days, and urea was found in large quantities in the urine.

The fourth, or critical stage, began on the ninth, eleventh, fourteenth, or seventeenth day, and the following were the most remarkable symptoms: When the patient one or another night had seemed to be in extreme danger, a change took place. Instead of sinking into stupor or coma, the patient (sometimes after prolonged insomnia) fell into a sound and refreshing sleep of six, eight, ten, or even twelve hours; the skin, formerly dry and pale, became soft and moist; and when the patient awoke he would answer questions sensibly, although his voice was still weak and trembling. He seldom, however, recollected what had happened to him, or where he had been during his disease. After some more sound sleep and slight perspiration, the patient gained in strength, his pulse beat more naturally, his appetite improved, the dark sordes on his lips and tongue disappeared, and he gradually entered the convalescent or fifth stage. His recovery, however, was often interfered with, or retarded by some fatal accidents, bedsores, parotitis, or gangrene of the lungs, which also sometimes occurred in the earlier stages of the disease. Many convalescents regained their health with a temporary loss of their hair.

From the preceding short description of our Icelandic typhus it will be seen that this disease greatly resembles the typhus exanthematicus or contagiosus of Dr. Hildenbrand, which is admirably treated of in his well-known monograph, "Ueber den ansteckenden Typhus" (Wien, 1810), and which may still be looked upon as one of our most celebrated works on this subject.

II. *Enteric Typhus or Typhoid Fever.*—About a third part of all those affected in the aforesaid epidemic in our country suffered from enteric typhus, which also may conveniently, as is generally done by the German physicians, be divided into several stages, according to the well-marked progress of its course. The first, otherwise named the premonitory or latent stage, was well marked by the gastric symptoms. The patients were generally first affected by dyspepsia; they had slow or deficient appetite; complained of some pain in the epigastric region, and had a heavy or dragging sensation in the hypogastrium. Sometimes, moreover, they felt pain about the liver or spleen; they were generally costive, or complained of slight mucous diarrhœa, and recurring pain below the umbilicus; their tongue was covered with a white or greenish-yellow fur, and they often suffered from nausea and vomiting of a dirty green-colored fluid. Besides this they complained of headache, especially in the forehead, pain about the back, and intermittent weariness and uneasiness in the extremities. Their muscular strength was in this stage rarely impaired, but they told me that they easily grew fatigued, and were liable to be attacked by palpitation if they labored or walked for some hours uninterruptedly. They often looked pale and melancholy, and feared that some dangerous or malignant disease was impending. Their skin was unusually dry, and it was with great difficulty that they perspired, even when taking exercise.

This stage now and then lasted for a week or more, but generally not longer than twelve days.

The second stage always commenced with a more or less violent fever, followed by painful headache, especially in the forehead, hard and frequent pulse, dry and hot skin, flushed face, and suffusion of the eyes; on pressing the hand, more or less uneasiness was felt in the right ilium, and in many cases there was a painful sensation similarly complained of in the hepatic and splenic regions. Although costiveness in this stage was a common symptom, mucous diarrhœa also occurred during its entire prevalence. Most of my patients had sleepless and restless nights, or their short and unrefreshing sleep was interrupted by unpleasant dreams and hallucinations of hearing and vision. Many drunkards were in this stage seized with delirium tremens, which often terminated in death, and was, therefore, a most dangerous complication. Some young ladies of sensitive temperament fell into a continued "delirium nervosum," which in some respects resembled delirium tremens, although the cause was evidently quite different. Other patients fell into a phrenitic delirium, which was in a very few cases terminated by apoplexy.

The duration of this stage was generally between five and seven days.

The third stage (the "stadium nervosum" of the German physicians) was characterized by extreme weakness, and by nervous symptoms. The patient was quite unable to rise, and slipped from the pillow towards the foot of the bed; his voice was scarcely audible, and he swallowed with great difficulty; the tongue was dark and tremulous, and was protruded with hesitation; and the hands and limbs trembled also. Some patients, moreover, were constantly delirious, and made efforts to leave their bed, but, on attempting to do so, sank down instantly on the pillow. Most of them were tormented by diarrhœa, the evacuations being dark green or yellow ochre, extremely fœtid, and often sanguinolent. Others were affected with tympanitis and constipation, constant hiccough and convulsions; and this condition was usually associated with retention of the urine, the water constantly dripping from the urethra, and occasioning erythema and gangrenous ulcers in the parts most exposed to pressure. In this stage small rosy red spots appeared on the skin, especially on the abdomen, breast, and arms; and some few patients had sudamina, a symptom which was almost invariably indicative of a fatal termination. The pulse was very weak and frequent, and the pulsation of the heart as irregular as that preceding syncope. In a few cases softening of its muscular texture occurred previously to dissolution.

This stage often passed very gradually into the fifth, or so named "stadium criseos" of the Germans, and for the most part commenced with perspiration and sound sleep. After the latter the patient's mind was observed to be clearer, but the sense of hearing and the perceptive faculties were slow in regaining their original vigor. Convalescence was sometimes protracted for many weeks, and entire strength recovered only after the expiration of one or two months. The abdomen was also sensitive for a long time after the complete cessation of the febrile symptoms, and want of due care in diet, or premature exposure to cold, often occasioned dangerous relapses. The gangrenous ulcers that so often occurred in the typhoid or the eruptive form of the disease, were difficult to cure, and sometimes lasted two or three weeks, rendering recovery slow and doubtful.

The typhoid in its third stage sometimes terminated in gangrene of the lungs, indicated by a dingy green tenacious expectoration of an offensive odor, and associated with great prostration of strength, mucous ronchus, and a very frequent and feeble pulse; few, however, recovered after these dangerous complications.

In the preceding abstract, I have briefly recounted the various symptoms of our epidemic fever, when it was permitted to run its entire course without being checked by the interposition of art. The period of its duration would, however, have to be lengthened by a term of from twenty to thirty-six days, or even more, if we were to take cognizance of its multifarious sequelæ.

I saw many cases in which the malady was allowed to run on through all its stages, without the adoption of any active remedial measures to arrest its progress. At the beginning of the epidemic I was obliged to ascertain whether it was safer to employ drugs, or to confide solely in the vis medicatrix, especially as the simpler method numbers so many votaries in France, Germany, and the Scandinavian north, to say nothing of England, where, in former days, physicians made so bold and free a use of medicine. During the prevalence of the epidemic, I read articles in several numbers of *The Lancet* of 1858, in which the treatment to which I have alluded seemed highly recommended, and in which several medicines which had formerly been considered useful not only in enteric typhus, but also in eruptive typhus, were either condemned or looked upon with suspicion. This was especially the case in an otherwise well-written article by Dr. Stephen Ward, of London (see *The Lancet* of 27th March, 1858, p. 310), where the author says, "that we should be cautious in administering even the mildest aperients." In another passage, he says, "Although valuable in the relief of symptoms, treatment did not seem to exert much influence in curtailing the duration of the disease. If not cut short by a fatal termination, the fever usually ran on to the end of the third or fourth week, and its sequences occasionally rendered convalescence very protracted." Moreover, most of the new medical works which I have seen from France and England seem to recommend only the symptomatic treatment of eruptive and enteric typhus, a treatment which I have seen extensively pursued during the prevalence of several epidemics in Norway and Sweden, and Germany. During my twenty-five years' practice it has fallen to my lot to observe many of these fevers, especially enteric typhus; and during my fifteen years' practice in Denmark, many of them fell under my treatment. I had formerly seen a considerable number of such cases in the wards of Copenhagen, Berlin, and Hamburg. The results of this so-called symptomatic treatment were, however, as far as I know, so little encouraging, that I myself felt no desire to follow it. In this country, moreover, it would have been impracticable. I preferred, therefore, to go on in my own way, and generally practised a mode of cure which I had previously tried with success.

But, in order to know exactly whether my own plan was really preferable to the rational or expectant method, it was of course necessary to submit both to trial, and this I did from the very beginning of the epidemic until I could no longer entertain any doubt as to the result. The remedial agents of the expectant treatment were principally pure cool air, cleanliness as far as possible, *eau sucrée* or acidulated beverages, and at the commencement a diet of a mild, unstimulating character, subsequently rendered more and more nutritive, according to the exigencies of the patient, and his need of support. That the air might be as pure as possible, ignited charcoal was used to destroy any deleterious substances, or the floors of the rooms were sprinkled with Sir William Burnett's chloride of zinc. Anything calculated to disturb the patient was strictly prohibited, and mild enemata were employed to counteract constipation or costiveness. In order to prevent all bad and noxious exhalations, the water-closets should always contain an ounce or two of sulphate of iron. The contents should be removed as soon as possible, the bed-clothes should also be changed every day, and the surface of the body should be sponged or washed over with warm water. If there was severe headache, attended by much throbbing in the temples, applications of cold water were ordered, and, in cases of tenderness of the right iliac region, oleaginous frictions were found serviceable. If diarrhœa occurred, rice-water or decoction of salep was exhibited, and especial reliance was placed upon musk in those comparatively rare cases which were complicated by nervous derangement indicated by spasm or hiccough. If retention of urine supervened—and this was a frequent consequence—the catheter was employed. Subsequent affections, such as gangrenous ulcers, erythema, parotitis and gangrene of the lungs, were treated upon general principles, and a moderate use of wine was allowed during convalescence.

Some patients who were thus treated had sometimes before my arrival taken emetics or purgatives, or had been bled, but they were immediately cautioned against the repetition of similar indiscretions. —*Edinburgh Medical Journal.*

(To be continued.)

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, NOVEMBER 20, 1862.

It gives us great pleasure to print the following report of Drs. Bowditch and Ellis, as it adds confirmatory evidence to that which we have given heretofore, that our Government hospitals are, in the main, well managed. These gentlemen were the first, we believe, to make a tour of inspection under the authority of the Sanitary Commission, and had peculiar opportunities for the most thorough and searching examination: their report, therefore, is all the more valuable.

Boston, Nov. 7th, 1862.

His Excellency John A. Andrew, Governor of Massachusetts.

Sir,—In accordance with your request, we address to you a few lines upon the condition of the U. S. Hospitals in and about Washington. The public mind has certainly been unnecessarily excited by reports, based, perhaps, upon isolated cases, but quite as often upon the false statements of patients who hoped to gain by representing everything in as bad a light as possible.

Having enjoyed every facility for as complete an examination of the hospitals of Alexandria, Georgetown and Washington, as a prolonged inspection would admit, we feel authorized to present the results of our labors, as worthy at least of as much credence as the statements of partial observers, whose sympathies have been their only guide.

The hospitals, for convenience of description, may be divided into four classes.

First. Buildings constructed expressly for the purpose.

Second. Wooden buildings originally used as barracks.

Third. Hotels and dwelling houses.

Fourth. Churches and halls.

The first are admirably planned, and, although not so imposing in their appearance, are vastly better than most of the costly structures in our large cities.

The wooden barracks, although not so conveniently arranged, nor constructed upon such correct principles, have, by careful management, been made to answer every purpose.

The hotels contain a large number of rooms, most of them small, and are therefore not so well adapted for hospitals, but nothing has occurred to show that the patients have suffered from confinement within them. The dwelling houses are objectionable from the same reason, but, setting aside the danger of overcrowding and defective ventilation, the soldiers could not be more delightfully situated, than in the elegant mansions which they occupy. This is particularly the case in Alexandria, where large gardens are attached to the houses.

The churches, though not so convenient in some of their appointments as other buildings, have, in abundance, the great requisites, light, air and space.

Only one hospital was totally condemned. It was, however, in process of being abandoned at the time of our visit, and within a week was wholly given up.

Our remarks on all the above buildings must be regarded as applicable to them only in the warmer months. As winter hospitals, they are yet to be tried.

Having thus explained the character of the hospitals, it only remains for us to state, that, in almost every respect, they were conducted in the best manner possible, and are an honor to the Government. As far as we could judge, the surgeons in charge were able, and, with a few exceptions, in every way faithful, doing all that lay in their power to promote the comfort of those committed to their care. We say this with the greater pleasure, being aware of the many difficulties with which they have been obliged to contend. Among these, by no means the least has been that caused by the well-meant but mistaken kindness of visitors, who have come with the view of aiding soldiers from particular communities or States. Forgetting that all have suffered alike in defence of our common country, they perhaps supply every little want of the man from Massachusetts, while one from Michigan is suffering unheeded by his side. A desire to distribute their own gifts, has also led them, at times, to claim what could not with safety be granted in any hospital, civil or military.

Complaints were often made of the quality of the diet, only once of the quantity. Similar complaints are made in every civil hospital we are acquainted with. Often have they been urged by patients against the Massachusetts General Hospital. An intelligent and humane surgeon in charge is, however, generally able to provide with his hospital fund stimulants and delicacies for the sicker patients.

It was deeply interesting to us to notice how rapidly the vermin of the camp was exterminated from the soldier on his admission into the hospital. Itch is wholly unknown in the army, and certain nameless diseases, the results of vice, are, we believe, more common among civilians resident in cities, than in the army. This fact speaks volumes for the character of our volunteer army.

We cannot close this letter without alluding in the highest terms to the uncomplaining and noble fortitude evinced by all our wounded soldiers.

The sum-total of our experience may be stated in a single sentence. Considering the vast number of quacks that prey upon the unsuspecting but credulous community—considering, also, how many in civil life are continually dosing themselves, or wholly neglect the rules of health, we think that the soldiers in our Government hospitals are, medically, better treated than the same number of invalid civilians outside of them.

We have the honor to be

Yours, very respectfully,

Henry I. Bowditch.
C. Ellis.

Death of Dr. Wm. B. Gibson.—Died, at sea, in the neighborhood of Key West, on Saturday, the 8th inst., Dr. William Borrowe Gibson, Assistant Surgeon U.S.N. This announcement will bring sorrow to many hearts in our community, for Dr. Gibson had many friends among us. It was our privilege to watch his opening career in Boston, as a medical student, and as surgical house-pupil in the Massachusetts General Hospital, during the last year of his studies; and we can truly say that few young men of greater promise have left us for the service of the country. During his pupilage he was distinguished for his indefatigable industry, and while in the service of the hospital he endeared himself by his peculiarly gentle and amiable manners to all with whom he came in contact. He was most conscientious in performing his laborious duties to the letter, and the patients under his charge always felt they could look to him as a friend. We well remember the universal sadness of the surgical wards on the day when he bade their inmates adieu.

The most prominent traits of Dr. Gibson's character may be said to have been, unfailing amiability of disposition, great amenity of manners, promptness and untiring industry in the performance of every duty, and almost child-like ingenuousness. He had naturally a good deal of mechanical faculty, which promised to be of very efficient service to him in the practice of his profession. He was always cheerful: and his pleasant voice and sympathetic way made his visits to the sufferers in the hospital the glad rather than the dreaded moments of the day. On leaving the hospital, Dr. Gibson obtained a commission as Assistant Surgeon in the Navy, passing his preliminary examination with great credit. We have heard of him from time to time since, and always with strong expressions of commendation and regard. We have received the following particulars of the concluding chapter of his history from a friend who was near him during his last hours:—

"During the Vicksburg fight, last spring, Dr. Gibson was attacked with the fever then quite prevalent. With careful treatment he recovered his health so far as to enable him to attend to his duties. A little more than a month ago I met him at Pensacola; he was then tolerably well, but weak. The latter part of last month he went upon an expedition up Black River, near Pensacola, and was there exposed to certain miasms which caused a relapse of the fever. By the recommendation of a medical board of survey, he was sent on board the U. S. Steamer Connecticut for transportation home. In about twenty-four hours out from Pensacola, he became delirious, and remained in that condition during his life. On the fourth day out, Saturday, Nov. 8th, at a quarter before 2, P.M., he died, and as there were no means of preserving his body, he was buried in the Naval Burying Ground at Key West. He had every attention which it is possible for a sick man to have on board a ship. Dr. Gibson was very much beloved by all with whom he had any dealings: he had letters of recommendation from the Fleet Surgeon, and also from the Surgeon of the ship. The Admiral (Farragut) gave him a very fine letter, hoping his health would be restored and allow him to return. Dr. G. was connected with Admiral Farragut's flag-ship Hartford."

Fat as an Antidote for Poisoning by Strychnia. By Dr. F. Riendernhoff.—It is well known that in poisoning by strychnia and its salts, recovery can scarcely be expected so soon as tetanus has made its appearance: that this may manifest itself in men within five minutes after the administration of half a grain of a salt of strychnia; that it is generally present within twenty minutes: and that the fatal result generally follows in from a few minutes to two hours. In cases of such terrible rapidity, in which, unfortunately, there is generally no time for the employment of therapeutic means, it would be in the highest degree important to possess an antidote procurable at all times and in all places, and possessing the not trifling advantage of being in itself perfectly innocuous. On this account, and encouraged by the favorable results of Blondlot's experiments on the use of fat in the case of poisoning by arsenic, Dr. Riendernhoff made use of the same substance in the case of about thirty dogs and rabbits to which he administered strychnine. The rabbits were poisoned with a solution in water of acetate of strychnia, injected into the stomach; in the case of the dogs the strychnia was worked up with a drop of water into a bread pill. The results arrived at were the following:—

1. The absorption of strychnia and its salts is impeded by the administration of fat (hog's lard), butter, or oil; this effect is more striking in the case of fat than of butter, and least of all in the case

of oil. The time so gained must be utilized for instituting a regular treatment.

2. The course of the symptoms, after the appearance of the first cramps, is rather shortened than lengthened by butter and oil; therefore lard has an advantage over butter, and this over oil.

3. The presence of fat, butter, or oil in the stomach also delays the operation of an emetic. The emetic must therefore be given in relatively large or in repeated doses, but the use of the stomach pump is preferable when fat has been administered; under these circumstances, the fluid employed to wash out the stomach would naturally be oil.—*Edinburgh Medical Journal* from *Archivs fur die Holländ. Beitrage zur Natur. und Heilkunde.*

RHEUMATISM OF THE DELTOID MUSCLE.—Charles Holtom, M.R C.S.E., in a late number of the London *Lancet* says he finds the following treatment very successful in cases of this affection. "A liniment containing tincture of aconite to be applied externally night and morning, the muscle afterwards being covered with spongio-piline or cotton wool. Internally a mixture containing one sixteenth of a grain of strychnine and twenty minims of tincture of sesquichloride of iron three times a day."

AFFECTIONS OF THE THROAT IN SCOTLAND.—Sore throat, ulcerated sore throat, and diphtheria, have occurred in various localities in Scotland, and in Mid and South Yell. The sore throat appears to have been accompanied with an affection of the hands, which raises the suspicion that sore throat and diphtheria in the human subject is but a variety of the epidemic disease in cattle known by the name of murrain or epizootic aphtha, characterized by the aphthous and ulcerated mouth and sore hoofs.—*London Lancet.*

COST OF LUNATICS.—From the sixteenth report of the Commissioners in Lunacy, it appears that the entire weekly costs of lunatics in county and borough asylums for 1861 ranged from 7*s.* 2*d.* to about 10*s.* 8*d.* for each individual. At Bristol, however, the entire weekly cost amounted to 13*s.* 4¾*d.* In hospitals, as appeared from a large number of returns, the cost of a lunatic varied from 15*s.* 2*d.* to about 22s. 6d. —*Ibid.*

THERE are now in the 150 general hospitals of the United States, 60,515 sick and wounded soldiers. Of these 12,665 are in the Western Departments, 17,214 in Washington and vicinity, and the remainder in the various general hospitals throughout the Atlantic and Gulf States. To attend these properly, it is necessary to keep employed a force of 400 stewards, 300 ward-masters, 6051 male and female nurses, 3025 laundresses, and 2017 cooks, making a total of 72,308 non-combatants, although medical officers are not included. If to these were added the sick in the Departments of the Pacific and New Mexico, those at home and in regimental, brigade, division, army corps, and private hospitals, there is no doubt that the number would be swelled to 100,000.—*American Medical Times.*

DR. RUFUS KING BROWNE, a surgeon in the army, describes, in the *American Medical Times*, a disease which he calls gangrene of the throat, first observed, he says, at the U. S. General Hospital in the Department of the Gulf. It supervened, in the cases cited, upon the state of exhaustion and extreme debility brought on by the Mississippi or marsh fever, accompanied often by chronic and incurable diarrhœa. It attacks only the throat, involving the root of the tongue, the ventricles and the cartilages of the larynx. Unlike the ordinary hospital gangrene, it is not caused by the crowded condition or unsuitable location of the hospital, as the building referred to is spacious and airy, not full, and every arrangement in regard to the most perfect cleanliness is fully carried out. No treatment adopted proved of any avail.

The Editor of the London *Lancet* calls the attention of the Secretary of the Admiralty to the subject of ventilation on board the armor-plated vessels now in the course of construction by the British Government. He represents the danger from disease engendered on board the old wooden ships, by the foulness of the air on the lower deck, as far greater to the crew than that from the shot and shell of the enemy, and states the same danger in the iron-clad vessels to be greatly increased. It has been found, he says, that in proportion as the offensive power of these ships is increased, the defensive power becomes diminished, the public authorities forgetting that shot-proof ships may require disease-proof sailors. In the American iron-clad vessels this important matter has received much attention, and a system of artificial ventilation is adopted, but we are not aware of its efficiency.

Introductory Lectures.—The regular annual course of lectures in the Medical Department of Lind University commenced on Monday evening, Oct. 13th, with a general introductory lecture by Prof. R. N. Isham. The lecture room was well-filled with an appreciative audience, who listened to the lecture with much interest and pleasure.

The introductory exercises of Rush Medical College took place according to the announcement on Wednesday evening, Oct. 1st The lower lecture room of the College building was filled to overflowing by students and friends of the school. Owing to the unexpected detention of Prof. R. L. Rea, then acting as fleet surgeon on the Mississippi, the annual introductory address expected from him was given by Dr. J. Adams Allen.

In the University of Buffalo, Nov. 5th, the lecture introductory to the medical course was given by Prof. James P. White, to a large class of students. The occasion was also graced by the attendance of many friends of the College.

The introductory lecture at the Jefferson Medical College was given by Prof. T. D. Mitchell. The introductory at the Philadelphia Hospital was delivered by Dr. Agnew to a very large and appreciative audience. There was no formal introductory given at the University.

In the College of Physicians and Surgeons, New York, the introductory was given by Prof. Joseph Mather Smith, in the N. Y. University by Prof. Gunning S. Bedford, in Bellevue Hospital Medical College by Prof. Austin Flint, Jr., and in the New York Medical College by Prof. Wm. F. Holcomb.

Mortality of Providence, R. I.—The deaths for the month of October, as reported by Dr. Snow, amount to 72—showing the continuance of the unusually favorable state of health which has characterized the present year. Thus far in the year, the deaths have been 169 less than for the same period last year, and 117 less than the average for six years past.

INSPECTION OF GOVERNMENT HOSPITALS BY THE SANITARY COMMISSION.—Drs. H. I. Bowditch, Calvin Ellis, Morrill Wyman, Charles E. Ware and B. S. Shaw, have completed their first tour of inspection in the service of the Commission, and Drs. R. M. Hodges and J. N. Borland are at present engaged in examining the hospitals in Philadelphia and the vicinity. Drs. Francis Minot and S. L. Abbot leave this week for Fortress Monroe and Norfolk.

AGREEABLY to General Orders No. 10, from Headquarters, Army of the Frontier, dated Springfield, Mo., Nov. 7, 1862, Surgeon George H. Hubbard, U. S Volunteers, has been assigned to duty as Medical Director of the Army of the Frontier. Dr. Hubbard has appointed Brigade-Surgeon F. G. Porter, M.S.M., Medical Director of the Second Division, and Surgeon M. B. Cochran, 1st Iowa Cavalry, Medical Director of the Third Division of the Army of the Frontier.

Dr. A. B. Crosby, of Hanover, N. H., late Brigade Surgeon of Vols., has declined the appointment of Surgeon of Vols., having received an appointment in the Medical Department of Dartmouth College.

MUNIFICENT DONATION TO THE U. S. SANITARY COMMISSION.—The city of San Francisco, California, has sent to the United States Sanitary Commission one hundred thousand dollars. This munificent donation is most opportune, and will enable the Commission to largely increase the comforts of the sick and wounded of our heroic army.—*Medical News and Library.*

THE "Central Park Hospital" of New York, has been opened for the reception of patients, under the charge of Dr. F. H. Hamilton, for the treatment of soldiers who have suffered amputation, and who are to be supplied with artificial limbs by Government.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, NOVEMBER 15th, 1862.

DEATHS.

	Males.	*Females*	*Total.*
Deaths during the week,	36	42	78
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	34 8	35 0	69 8
Average corrected to increased population,	..	..	75.46
Deaths of persons above 90,	..	1	1

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
15	2	4	3	5	0	1	2	2

DEATHS IN BOSTON for the week ending Saturday noon, November 15th, 73. Males, 36--Females, 42. Abscess, 1—accident, 2—anæmia, 1—apoplexy, 1—asthma, 1—inflammation of the bladder, 1—inflammation of the bowels, 1—congestion of the brain, 1—inflammation of the brain, 2—bronchitis, 2—cholera infantum, 2—consumption, 15—convulsions, 3--croup, 4—cyanosis, 1—debility, 1—diarrhœa, 2—diphtheria, 2—dropsy, 1—dropsy of the brain, 1—dysentery, 1—scarlet fever, 3—typhoid fever, 2—typhus fever, 1—hæmorrhage, 2—intussusception, 1—disease of the liver, 1—disease of the lungs, 1—inflammation of the lungs, 5—marasmus, 1—old age, 4—paralysis, 3—peritonitis, 2—teething, 1—thrush, 1—unknown, 7.

Under 5 years of age, 25—between 5 and 20 years, 4—between 20 and 40 years, 21—between 40 and 60 years, 14—above 60 years, 14. Born in the United States, 52—Ireland, 22—other places, 4.

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VARIOLA IN SHEEP.

[Communicated for the Boston Medical and Surgical Journal.]

[The following communication, from Dr. Benj. Cushing, of Dorchester, is of interest in connection with the history of variola. It was written by Dr. Thomas Thaxter, of Hingham, so long ago as 1811, in the form of a letter to Hon. James Bowdoin, and is of value as showing the progress of this disease as it appears in certain of the lower animals. It will be noticed that, as in man, it was considerably modified by inoculation. The subject has recently been noticed in a number of the London *Lancet*.—Ed.]

Honor'd Sir,—Having perused the treatise you were kind enough to send me last winter, I ascertained that the flock of merino sheep which my son sent me, and which were late from Lisbon, had gotten the species of smallpox among them peculiar to sheep; the progress of which disease, and the observations made, I will communicate to you, as far as I am able.

The disorder is as distinctly marked in the sheep as the smallpox is in man. Three kinds were observed, viz., the distinct, the confluent, and the purple. The infection was communicated from one to the other in the same manner as with human beings; from coming within the atmosphere of each other at an advanced stage of the disease (at which time they have a peculiar smell); or from being within the same pen; or from feeding at the same vessels, before they were cleansed, which the sick sheep had used. I found the disease discovered itself from the twelfth to the fifteenth day after receiving the infection in the natural way.

The first symptoms of those with the purple variety were so rapid that they could scarcely be marked from one stage to the other; but they every one appeared to be much swollen all over, with hard and laborious breathing; and they died very soon, with a dark appearance of the skin, similar to that in man.

The confluent and distinct varieties were more marked, and gave greater opportunity for observation. In the first attack, the sheep inclines to a solitary place in the yard, and keeps working her mouth and tongue, as if tasting some disagreeable substance. But, though not inclining to ruminate, she will not altogether refuse food. She soon begins to rub her head against the fence or wall, and to have a discharge from the nose, like those first affected with a cold. The eyes appear swollen, the ears fall, the head hangs down, while the body is generally drawn up. In about three or four days, sometimes not till the fifth or sixth, they pretty much refuse to eat, and then appear to have very sore mouths and throats, so that eating must be very painful. They are very thirsty, and, after drinking, manifest considerable distress, especially if allowed to take more than a pint.

An examination of those with the confluent kind discovers spots, from the size of half a dime to that of a dollar, risen on the skin somewhat like a ringworm, vulgarly so called, but without inflammation or contained fluid; nor did these spots in my sheep ever appear to have much, though some of the patients lived to the ninth or tenth day. At this advanced stage of the disorder, there was a copious discharge from the nostrils, of a mucus, sometimes white and sometimes yellowish.

The symptoms of those with the distinct kind were at first much the same, only less in degree. About the third or fourth day, the pox might be discovered in hard, prominent red pustules between the shoulders and breast, on the dugs, and also on the tail. In three or four days more, these pustules appeared flattened, and to contain a fluid; but, on opening them, you would be disappointed as to the quantity, seldom being able to obtain a drop where you might have expected several. These pocks would afterwards produce a dark scab, which would remain a number of days before separating, and would be found all over the sheep, among the wool, causing it to fall off after a while.

A few of the sheep that had the distinct kind mildly, after three or four days, would ruminate at times; but seemed to have exacerbations of the disease, which they expressed by uneasy, restless motions, as if in pain. Several of the sheep, while the disorder was in progress, and others, after it appeared to have subsided, would be taken with a paralytic affection of the limbs. The lambs especially would sometimes be attacked with this affection as the first indication of their being ill. The sheep, throughout the whole disorder, had great sensibility to being handled, and, particularly, to being pulled by the wool; and, during the last stages, inclined to huddle together, as if for additional warmth.

I tried several methods with them, such as early bleeding, purging with neutral salts, administering castor oil, senna, and thorowstock, with glysters; but without any permanent effect. In some instances where the sheep appeared costive, these remedies gave temporary relief; but, in general, the alvine and urinary evacuations were performed without artificial assistance. I also used blisters between the shoulders and breast, applied onions to the throat, and gave water-gruel and teas made of mullin, saffron, juniper, &c., with injections of vinegar and oil into the nose to increase the discharge, but found little satisfaction from any mode of treatment.

I had a merino ewe, imported in November, which lambed on January 27th, having a good udder of milk, and a healthy lamb. On the 30th—making between eleven and twelve days from the time of her being among the diseased sheep—she began to exhibit signs of indisposition. She soon refused to nurse the lamb, and appeared to have her bag hard and swelled, as if with milk. The lamb died Feb. 6th, and the sheep the 7th, making between twenty and twenty-one days from her first being where the disorder was. In February, I first discovered that the disease had got among my native sheep. Nine out of twenty-two ewes were taken within two days, six of which died—one in twelve hours, one in thirty, and one in forty-eight, after first discovering them to be unwell. The others lived—one nine days, one sixteen, and one, after losing both eyes, expired on the thirtieth. Of the two last, one—on being opened—was found to have had a suppuration near the base of the heart, the other a suppuration in the lungs, which I have found to be the case, on dissection, in a number that had got through the pox, but died in some three months or more afterwards, having ulcerations of the lungs and hydatids in the liver, with tubercles frequently interspersed with both, which tubercles were disposed to form, some with water and some with pus.

My first endeavor to stop the disorder among the sheep, was to separate the well from the sick, placing those supposed to be healthy in healthy barns. But whether my man who attended to this duty carried the infection in his apparel from one barn to the other, or carelessly brought some of the vessels that the sick sheep had eaten from, to feed the well in, I cannot say; but when I thought a stop was put to the disorder, from the well sheep having been more than fifteen days without any indications of sickness, all at once four new cases were perceived to occur, three of which terminated fatally, from the fifth to the ninth day. During this time, I found two sheep which had the distinct kind in so mild a manner as hardly to be perceived; and accordingly removed them before I thought they had communicated the infection to the remaining number, which was seven; believing that, in case they had received the infection, they would all die, as they were near the time of lambing.

At this point, I took matter from the pox of the infected sheep, and inoculated the well ones, some of which lambed just before, and others soon after, breaking out. The lambs, twelve in number, I inoculated at three or four days old. All, lambs as well as sheep, did well, and have not since appeared to pine, or to be in any way disordered, although I did not do anything for them, except to keep them carefully as to air and diet. The sheep, excepting in one instance, did not appear to have the symptoms upon them more than two or three days. After this time, they would eat and ruminate naturally and freely. Some, one would never perceive to have the disorder but from the circumstance that their incisions contained a good pus, and from finding a few pustules upon them, after some days.

In the instance of the one the most and the longest affected, the part inoculated inclined much more to indirect inflammation and to sphacelation than suppuration. The rest discovered their having taken the disease by pus forming in the incisions, on the second, third, or fourth day (the earliest appeared to be the best cases), so that you might collect several drops, and this you might continue to do for some days.

The mention of the appearances last enumerated leads me to think there must have been some mistake made by the printer of Mr. Flag's treatise, where it is said, that the smallpox by inoculation appears in two days, and that in the natural form in from fifteen to thirty. Except in the pus found in the incisions, in no instance did I discover the disease by inoculation, nor did the pox come out and form a crisis in less than eight, ten or eleven days, though some of the sheep would eat and ruminate, and, unless the teats were sore, nurse their lambs the whole time, while others appeared to be ill for two or three days. In the natural way, I never could find an instance of the disease being more than fifteen days before discovering itself by the symptoms; and though in general one would find the pox of the distinct kind, the patients would be ill for fifteen or twenty days longer, and would not appear quite well or thriving in less than thirty or forty.

It is singular that in no instance—whether the disease was taken the natural way or by inoculation—did I know of the ewes casting their young; not even in those cases where the form of the disorder was the confluent or the purple. In the few instances in which my sheep lost lambs, I attributed it to their being handled, when gravid with twins or triplings. I noticed that the disorder did not lessen the milk, at least if the sheep was not reduced by time. I also observed that there was less disposition* for a fluid to form in the pustule than in the human subject. From frequently handling the lambs, I found that they perspired very freely on the belly near the groins, and were apt to have the testicles affected. I had no opportunity of examining an old male. All under my observation were ewes, in which I could discern no difference, whether the patient were nursing, gravid, or barren.

Thus, Sir, I have given you a succinct history of the disease; and, from the observations made, should recommend immediate inoculation—let the season or condition of the sheep be what it may—whenever the disorder gets into a flock.

With respect, Your humble servant,

Hon. J. Bowdoin. THOS. THAXTER.

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* The word appears to be disposition, deposit, depression, as near as can be ascertained; disposat, it looks most like.

ON THE DISINFECTING TREATMENT OF TYPHUS, ERUPTIVE AND ENTERIC.

By John Hjaltelin, M.D., Inspecting Medical Officer of Iceland.

[Concluded from page 322.]

I must now describe my active or positive treatment, but before doing so must make some remarks on the arguments which guided my mind in its adoption. For this, however, it will be necessary to go back a little, and show how my reflections were matured.

After having read much of what had been written on eruptive and enteric typhus during the last twenty years by the best writers in England, America, France, Germany, and Scandinavia, I perceived that the widest discrepancy of opinion existed in reference to both theory and treatment. Many of our best physicians are of opinion that typhus fever originates from a specific poison, and some of them believe that this poison is of the same kind in the enteric as in the eruptive form of the disease. This opinion has in Germany been maintained by Professor Canstatt, one of the most learned medical writers on the Continent; it has, moreover, found its advocates in England, as may be seen from several articles in *The Lancet* and other medical journals of Great Britain, although there are some writers who maintain a different opinion—among others Dr. Stephen Ward (see his "Clinical Illustrations of Diseases of the Abdominal Viscera," alluded to in *The Lancet* of 1858, pp. 310 and 359). I can scarcely think, however, that physicians who support the latter opinion have witnessed any epidemic of eruptive fever upon a large scale; had they done so, it could not have escaped their observation that at least patients attacked by the eruptive form of typhus are at the same time more or less affected with diseases of the abdominal viscera, especially the colon and ileum, and that in many cases of this nature—indeed, more frequently than is generally believed—there evidently exists an affection of the mucous membrane of the ileum near its termination in the cœcum. I still remember an extensive epidemic of eruptive typhus that broke out near Copenhagen in the year 1838, the patients of which were brought into the so-called common wards of the hospital in the town, and treated by Professor Wendt, one of the principal physicians. I was then, as a young practitioner, directing especial attention to the course of that disease, and I observed in the bodies of some of those who died considerable enlargement of Peyer's glands. In our epidemic I found, on the contrary, that a great many patients affected with eruptive typhus displayed preternatural sensibility in the right iliac region, although from other symptoms there could be no doubt as to the true nature of the disease. We know, moreover, that the physicians of Paris have witnessed epidemics of this disease, in which gastro-intestinal irritation exists in the majority of cases, and that they have regarded this state of the intestinal canal as the essential cause of the disease. I must here add that, in the many hundreds of cases that have fallen under my cognizance during the last years, I have found very few patients entirely exempt from congestion of the mucous membrane of the colon and the ileum.

Dr. Stephen Ward says, in his very interesting "Clinical Illustrations of the Diseases of the Abdominal Viscera," "I can quite conceive the possibility of the specific exciting poisons of typhus and enteric fever co-existing in any given locality, and, as a consequence, the possibility of one or two individuals residing in such locality being affected with typhus, the other with enteric fever, or of one individual being affected with the two diseases at once." He then says, further, "that most medical men in large towns will have seen the co-existence of scarlatina and measles." This may be, but I doubt very much whether scarlatina and measles have been observed in the same patient at one time. I am, moreover, very doubtful about the distinction that this physician and many others have made between the rose-colored and the rubeolate or mulberry eruption; and the marked difference of opinion existing at present among the physicians of the Continent apparently demonstrates that on this subject there has been nothing irrefragably established. In the typical form of the disease in which the eruption appears, the number and magnitude of the spots will be found to vary considerably. I have seen them pale, roseate, dark red, and almost black. I cannot, therefore, agree in attaching, as many learned authors do, any very high importance to the precise nature of their tint. Professor Canstatt, who has written a most accurate description of all the cutaneous eruptions of exanthematic and enteric typhus, and who has observed those fevers in all parts of Europe, confesses that the colors of the true exanthema in eruptive typhus may very often be the same as that of the petechiæ so often seen in enteric typhus. If this be conceded, the diagnosis will chiefly depend on the degree of elevation and size of the spots, and the anteriority or posteriority of their appearance; for in genuine enteric typhus the petechiæ will seldom be seen before the ninth day. Be this as it may, I think that we must rely on phenomena of a more invariable character to gain any close approximation to the truth.

Probably most physicians who have seen and treated the eruptive and the enteric typhus will agree with me in considering that the symptoms as well as the causes of both these diseases are nearly the same. Both may arise from putrid effluvia, overcrowding, imperfect ventilation, bad water, uncleanliness, innutritious, ill-dressed, or unwholesome food, or too frequent use of animal food. To these may be added an irregular life, exhaustion, or contagion. I have no doubt of its contagiousness, although I am aware that this is sometimes denied. It has, however, been clearly demonstrated in a monograph emanating from the pen of the eminent Danish physician, Dr. Trier. In Iceland I have found so many proofs of this, that a complete enumeration of them would protract this paper to a tedious length. Although Dr. Stephen Ward and some English physicians doubt or deny it, I am myself prepared to advance the same proposition as Professor Canstatt, namely, that the contagiousness of enteric typhus can be contested by no unprejudiced observer.* On the Continent, with the exception of perhaps a small minority in France, there exists almost an entire unanimity of opinion.

An accomplished English writer, Dr. Charles Murchison, Assistant Physician to the King's College Hospital, and to the London Fever Hospital, in his most interesting contributions to the etiology of continued fever, is of the same opinion; for he says, in *The Lancet* of 8th May, 1858, p. 464, "Typhus is eminently contagious. Typhoid fever is also contagious, but in a more limited degree, and possibly through a different medium." This is my opinion also. Typhus usually arises from inhalation of bad air in overcrowded dwellings, but typhoid from a great amount of inorganic impurities in water, or an immoderate use of animal food, especially if it be of an unwholesome character, and the persons taking it have digestive organs naturally delicate. This, however, does not in any way disprove the identity of the typhus poison and the typhoid—for we know that decaying organic matter may engender either.

If we look closely into the predominant symptoms of both diseases, we shall find these symptoms are very like, and have only to suppose that the as yet unknown organic poison acts in typhus especially upon the brain, the lungs, and the skin, while in the typhoid fever it has acted more upon the mucous membrane of the ileum and cæcum, from which there arises an hyperæmic state in the Peyer's glands, many times terminating in inflammation, suppuration, and gangrene. That this is really so I have been convinced of in some cases of our typhus, where the cutaneous exanthema did not make its appearance on the fourth or fifth day. In such cases I generally found more or less pain by pressure of the hand in the right iliac region, followed by diarrhœa, or with ochre-yellow pea-soup-like dejections. In some of these cases exanthematic eruptions were seen on the breast at the end of the fifth day, but it seldom then made its appearance on the extremities.

Besides the aforesaid, one symptom convinced me of the identity of the typhus and typhoid poison, and this was the truly specific odor exhaled from the patients in both these diseases. I have read that this same odor has been remarked by the genial medical writer, Dr. Hilaro Barlow; for he says, in his "Manual of the Practice of Medicine," page 706, "Besides this, there is an odor peculiar to different fevers, as typhus, scarlatina and smallpox." The odor of smallpox is very well known, and has even been adduced amongst the most characteristic signs of this disease by the old medical writers. I still remember that I, as a young medical student at Copenhagen, was obliged to remark, in every journal of those affected with smallpox, whether there was a "halitus variolosus" or not, in order to be able to give a right diagnosis of the fever before the eruption. The odor of smallpox is very like the odor of salted herrings; and the odors of scarlatina, the measles and the Asiatic cholera are so specific, that we must wonder they should not already have been well described and put down in our handbooks of medicine as one of the most characteristic diagnostic symptoms of these diseases. I think Dr. Hilaro Barlow quite right in advising the young medical students to cultivate all their senses, and especially the sense of smell, for had this been done in an exact manner, and with due precautions, there could be little doubt about the identity of typhus and typhoid poison. I know very well that this is a more easy trial in small Icelandic cottages than in the large and lofty wards, and it is on this account that I by the circumstances in our country have been more able to do so than my medical brethren in foreign countries. The odor of the typhus poison is so decided, that it is well known even among the peasants in this country, and they have given it the name of typhus odor, or of "Sóttarlykt," which means the "fever odor." When people come to ask my visit to one who is seized with typhus, they generally say, "We wish very much you would come to see the patient, for he is very bad off, and there is a strong fever odor about him." Sometimes they said, "Our patient is not very sick, but we are afraid of him, because there is a strong fever odor about him. We wish, therefore, very much that you would come and see him, because it is most likely the typhus, and we might also be sick by the contagion." It is very natural that in the small Icelandic houses (where there generally is allotted only about one hundred cubic feet of air for each individual), the typhus odor must be very strong and penetrating, and so it really was, for it might somewhere be called insupportable. I now tried if I could make out any difference between the odor of eruptive typhus and that of the enteric typhus, but, after many repeated trials, I came to the same conclusion, namely, that I could not find out any real difference. The odor was, of course, strongest in the overcrowded dwellings; but it was strong enough to be clearly perceived where two or three patients were in the same room of the larger ones. When the rooms were well ventilated, the odor would be weaker, but it never quite ceased unless strong and effective disinfecting compounds were used; it was, therefore, very often necessary to continue them for a longer time, day and night, before the odor was wholly destroyed. Amongst all the disinfecting compounds I tried to this end, nothing was so effective as the iodoform; but its high price often prevented my using it as a disinfecting remedy for the rooms. Chlorine gas and bromine came next, and I found Sir William Burnett's chloride of zinc solution very serviceable. In the mean time, I found out that the chlorine gas and the bromine were nevertheless to be used with great caution, in order that they should not occasion cough, or affection of the lungs, when the air in the sick room was too strongly impregnated by them. This effect was never seen, either with Sir William Burnett's solution of chloride of zinc, or with the iodoform, and I therefore generally used one of these last named disinfecting substances, or charcoal. It was a fact worthy of remarking, that during the highest state of the epidemic in the spring 1860, there seemed to be a specific character of the air. The air would, namely, in the dwelling-rooms, very soon be corrupted if the windows were not thrown open many times a-day; and there was, I dare say, a bad "constitutio aerica;" but whether this was originated from the calm and the high barometer pressure which prevailed at the time, or by a want of electric tension in the air itself, I cannot tell. I have once before, in epidemic cholera, observed the same phenomenon, and, as far as I can remember, it has also been observed in this country during malignant influenza epidemics. The older physicians had a strong belief in the bad effect of what they called "constitutio aeris adynamica," and they believed that many malignant diseases might only arise from that cause; but I am inclined to look upon such a bad air-constitution only as a coefficient cause of the malignant epidemics.

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* Handbuch der Medicinischen Klinik verfasst von Dr. C. Canstatt. Erlangen. 1847. Zweiter Band. Page 572.

Having made many experiments with the aforesaid disinfecting compounds, I very soon found out that they did not only destroy the odor of the typhus poison, but would also prevent other persons, who were obliged to remain and sleep in the same room as the patients, to be infected with typhus; and it, therefore, very soon became an incontestable fact, that these disinfecting remedies would not only destroy the odor of the typhus and typhoid poison, but that they did also destroy the poison itself.

During this time I made some experiments to know whether the chlorine gas and chlorine water would destroy the vaccinia or not, and all these experiments went out in the affirmative. It is well known that one Dr. Schlegel, in Prussia, made many trials to destroy the contagion of Asiatic cholera during the years 1831, 1832, 1838, 1848 and 1849, and that he succeeded (see Jahresbericht ueber die Fortschritte der Heilkunde, 1849, von Dr. Canstatt and Eisenmann, p. 134); and it is, moreover, said in the *London Medical Gazette* for October, 1849, that Dr. W. Reid made the same experiments with the best success.

The renowned Dr. Eisenmann, in Germany, tried chlorine water in smallpox, and succeeded very well indeed. I was during three years the superintendent physician to the quarantine for cholera in Denmark—for the years 1848–52 inclusive—and during this time I made some experiments with chlorine gas on those that came into the quarantine from infected harbors, and seemed to be infected by the contagion, and sure it is, that cholera did never spread from that quarantine, but broke out in Copenhagen half a year after the quarantine had been abandoned by law.

I now made up my mind and resolved to try the internal use of the different disinfecting remedies. I could do this with the more hope of good success, as I had seen chlorine-water used internally against the enteric typhus in Berlin, and as I knew that Professor Schönlein, the learned physician to the late king of Prussia, had formerly, in his clinical lectures on typhus and typhoid fever, recommended this remedy.

I have never been any great admirer of the "nothing-doing" or the so-named expectant practice, and I have seen plenty of its sad results. I must frankly confess that such a behavior as is often recommended by the expectant physicians is strongly against my feelings, where any hope may be to do something positive, and I wish sincerely that our modern expectant medical practice might, as soon as possible, be transformed into a real and a more positive practice; but I think that a positive practice ought always to be built upon sound and exact physiological and chemical principles.

There is now-a-days, as before mentioned, even amongst the learned physicians, a general belief that we ought to allow the typhus and the typhoid fevers to run their own course undisturbed by our art, only putting some physics against its most fearful symptoms, in case of need; but, notwithstanding the great respect I owe to my learned brethren, I think this is a great mistake which ought to be abandoned as soon as possible. The most of the physicians of our times admit the existence of the typhus and typhoid poison; but, in so doing, it seems not very consequent to tolerate a poison acting upon the system without trying to destroy it, if that is thought to be possible. Should we not, for instance, find it a great mistake, if we in a poisoned patient only would have the system itself to act against the swallowed poison? Of course, we shall in every instance of poisoning observe certain phenomena of the poisoning effect, and we may always find that the system will show a reaction against the poison itself, and this may then cause a certain succession of phenomena in some way very like that which happens during the action of the typhus poison on the body, and the reaction of the system against the poison. It therefore seems to me that the effect of the typhus and typhoid poison can be compared with certain narcotics acting upon the system—viz., the action of some stupefacientia and deliriantia on the brain and the nervous system. Now as it would not be right or advisable to do nothing in case of poisoning by strychnia, morphia, aconitina, atropina, or other vegetable poisons, so I think it not quite right to do nothing against organic poisons, in whatsoever form we might have to deal with them. It is true that the typhus and typhoid poisons may be generated in the system itself; but even in that case, I think we ought to do something in order to prevent such a dangerous accident; this seems also to be accepted by all medical men, at least to a certain degree, and all our sanitary measures are invented and tend to that purpose. But notwithstanding this, there seem still to be several circumstances in this respect not as yet well taken into due consideration. The cleanliness in our dwellings and rooms in every respect is certainly a "conditio sine qua non," if we shall hope to get rid of fevers, but I think that our body, and especially our stomach and bowels, ought also to be cleaned in case of need. I know very well that purgative medicines may be abused, and are in truth often indiscriminately administered; but this, I think, is a common fault in our days, and has nothing to do with the right use of them. Sir Henry Holland, who, in his Medical Notes and Reflections, so eminently and clearly has treated this subject, and warned against the abuse of purgatives, says, page 454, "In truth there are cases where the bold and steady persistence in this method produces effects attainable in no other way. Such is especially the fact where the head is the part affected;" and he adds afterwards, "or, again, where the body is disordered by certain morbid matters collected and circulating in the blood, the removal of which can thus only be speedily and sufficiently obtained. The latter case, of which I have spoken more at large elsewhere, is one of much importance in pathology. I may describe it briefly here, as that attested in practice by the very large and long-continued discharge of dark grumous matters, usually termed bile, and understood to come from accumulation in the liver; but which, I doubt not, to be secreted in great part from the membrane or glands of the intestines, and to be a gradual separation from the blood of matters noxious to the system." These remarks of this able and learned practitioner are worthy to be remembered and brought into use in due circumstances. I remember very well when I was in Germany and Scandinavia, that the doctors of these countries said, "the man was seized with gastric fever, but this fever is now becoming a nervous one." Those so-named nervous fevers were nothing but the latter stages of an enteric typhus, which, in its premonitory and first stage, had shown predominant symptoms of what we generally term gastric state (status gastricus), and this, I think, is a very common accident in the most epidemics of this fever. It is remarkable to see how the names "febris gastrica, febris biliosa, febris mucosa," have disappeared from the newer handbooks on practical medicine, and are now substituted by the name of enteric typhus and even relapsing fever, and this seems to indicate that our names for fevers are not very much to be relied upon. It is generally believed that the enteric typhus cannot be curtailed, but how can we know that this is really so? I observed many facts in this epidemic that convinced me of the contrary truth; many patients who had all the premonitory symptoms of an enteric typhus, even with some diarrhœa and painful sensation by pressure of the hand in the right iliac region, recovered after some full doses of calomel, which then never failed to produce very heavy dejections of dark or dark-green grumous matter of the most offensive odor. The same grumous matter was also seen to continue for some time in those patients where the disease was either strong or advanced too far to be cut short by proceeding thus; but I must here remark, that in all instances of our typhus and typhoid fever, purgatives produced a good effect, and even where diarrhœa was observed from the beginning of the fever. I, therefore, wholly agree with Professor Canstatt, who, with his great experience, has found that diarrhœa in the beginning of enteric typhus does not at all contra-indicate the use of purgatives. Meantime, I must confess that in speaking of the good effects of purgatives in typhus and typhoid fever, I refer this chiefly to the outset or the first stage of these diseases, and I think that in doing so, I will agree with many of the experienced authorities in our century. Sir Henry Holland says, in his chapter on the abuse of purgative medicines, "There can be no doubt of the fitness of using purgatives in the early stage of most fevers."

It is a well-known fact, reported in many of the better works on practice of medicine, that the most learned German physicians have strongly recommended the use of calomel in the outset of typhoid fever, and amongst those I will only mention the names of Professors Schönlein, Canstatt, Sicherer, Rösch, Scharlau and Richter; and it is, moreover, well known that Dr. Labarraque cured 28 out of 30 patients affected with enteric typhus by his "Liqueur de Labarraque," which was nothing else but a saline purgative. In short, I was formerly so strongly convinced of the good effect of purgatives in malignant fevers, that I always made a bold use of them in our epidemics, and got by my experience to that point of evidence, that I at last looked upon them as quite indispensable, both in eruptive and enteric typhus. I was of course led to this by long and melancholy experience; for I always found that when purgatives had been either not used at all or insufficiently administered, I was, without exception, in the latter stages of those fevers, sure to meet with the most malignant symptoms, as meteorismus, continued fœtid diarrhœa, malignant ulcers in back and on the hip-joints, the greatest nervous depression, stupor, and gangrene of the lungs.

Regarding the use of emetics I was much more cautious. I know very well that they are still used by many physicians in these diseases, and are, of late, even recommended by the very highly experienced Dr. Jackson, in America (see the *Association Medical Journal*, 26th January, 1856, p. 69); but, nevertheless, I have very little confidence in their use in typhus and typhoid fever, except in a very few cases, when, in order to clean the stomach from impurities, there may be a rational demand for them. When I was in Copenhagen I saw them seldom do much benefit; in our epidemics it has been the same. Many physicians formerly believed that they might curtail the typhus and typhoid fever, if they were duly given in the outset of these fevers; this may sometimes have happened, but I think it in many cases rather to have been a result of their purgative effect than the emetic virtue. For our epidemia they had many times been called in use before my arrival to the sick, but I very seldom saw any good effect of them, for they generally weakened the patients and never curtailed or mitigated the fever.

After what has now been said, it will be easy to guess the indications for my disinfecting treatment of typhus and typhoid fever, which were—

1st. To prevent overcrowding in the farm-huts and cabins as far as possible, where this in any way could be done.

2d, To have the windows thrown open as often as the season would allow it, and make holes for ventilation where this could be most effectually done, for purifying the air.

3d. To destroy every offensive odor about the sick, and even the smell of the sickness itself.

4th, To introduce cleanliness in every respect.

5th. To clean the bowels of the patients as soon as possible in an effective and perfect manner.

6th. To destroy instantly the odor of evacuations from the patients.

7th. To use internally disinfecting medicines in a bold and consequent manner.

8th. To support the strength of the patients by easily digestible but nourishing foods.

The first indication could very seldom be fulfilled, but it was done whenever possible. The second indication was, for the most part, tolerably executed, especially when the people got afraid of the contagion, and therefore dared not shut their windows, but followed for the most my advice in opening them.

The third indication was, after the lapse of some time, when the people had seen the good effect of it, boldly executed; and the remedies applied to this purpose were the aforesaid disinfecting compounds—viz., chlorine gas, Sir William Burnett's chloride of zinc solution, iodoform and charcoal.

The fourth indication met with many obstacles, and could seldom, on account of bad habits or poverty, be executed as it ought to have been, or would have been, if cleanliness were a more common virtue in this country.

The fifth indication was fulfilled by administering a full dose of calomel, sulphate of magnesia, or sulphate of soda, all in large and repeated doses, according to age and other circumstances. The calomel was generally given in a dose of ten to twenty grains every day or every second day, until the fœtid odor of the dejections was gone. As the effect of this treatment, I may mention the lessened tenderness in the right iliac region and in the whole abdomen, lowering of the pulse, diminished headache, and more clear consciousness of the mind, when from the beginning there had been stupor or coma. In some cases sulphate of magnesia was given in a dose of a half or one ounce, until I was pretty sure of the bowels being well cleaned, and all bad odor of the evacuation had disappeared.

In order to execute the sixth indication, sulphate of iron was generally put into the water-closets before they were used; but, in some cases, chloride of lime was used for the same purpose. By these disinfecting compounds no odor of the dejections could be felt, although the patients had very large and noxious-smelling evacuations. I think that every one who knows the small and dirty Icelandic huts will agree with me that this is a quite indispensable proceeding to purify the air, where many patients are crowded together in small rooms. This method seldom failed to produce a happy effect upon the patients. The seventh indication was executed in several manners. If the patients were supposed to have strong and healthy respiratory systems, they were made to inhale iodoform or chlorine gas mixed with the air. The former remedy was most frequently used, and the good effect of it (according to my experience) is undeniable. It was in some instances given internally, dissolved in ether, and seemed often to produce a well-marked relief, and especially it was observed to check coma and delirium. The chloride of lime was never used internally, but the patients were often made to inhale the vapor of a concentrated solution of chloride of lime, which was managed in this manner:—Linen strips were dipped in the solution, and hung up to dry by the bedside, which caused a continuous chlorine gas exhalation in the room. By patients with weak and irritable lungs the iodoform was always preferred to the chlorine gas.

The eighth indication, namely, to support the strength of the patients, was fulfilled by nourishing food and decoction of bark; and this was sometimes recurred to in the third stage of the fever, in order to prevent death from exhaustion. It seems to me that many physicians are too much afraid of using nourishing diet in typhus fever, forgetting the great loss of nitrogenous compounds which this sickness, by the large excretion of urea, produces. I have seen many typhus patients in this country, who, as soon as they were able, took very nourishing food, which would never be allowed in the hospitals of Europe, recover speedily; and, comparing this fact with the languishing and protracted recovery in the hospitals, I conclude that nourishing food in the latter stages of this fever is quite indispensable.

As to the result of my treatment, I am obliged to make some remarks, and in so doing it is necessary to mention the ravages of the typhus fever in our country during the years 1859 and 1860. In the northern part of this island, and on the western shores, a good many patients fell victims to it; so that in some parishes the mortality was no less than 1 in 16, or even 1 in 14, of the whole population. In some parishes every tenth inhabitant died from the sickness; and in many places where no medical aid could be obtained, the mortality of the whole population for the year 1860 was 1 in 15 or 16. At the same time the mortality for the town of Reykjavik was only 1 in 29, and for the adjacent parish 1 in 27.

Being the whole time obliged to go from one hut to another, and, besides, to make many visits in the neighboring country, it was impossible for me to calculate the number of my patients in a perfect and accurate manner. I only know this (as aforesaid), that during the years 1858–61 I have had a number of not less than 900 cases of typhus and typhoid fever under my treatment, and that out of this number I have lost no more than 30 patients from this disease. In a neighboring parish the number of the patients was 95, and out of this number only two died. I am, therefore, inclined to believe that if my disinfecting treatment had been carried on under favorable circumstances, the result might most probably have been still more conspicuous.

It is, I think, an acknowledged fact, that the eruptive and enteric typhus are dangerous fevers; and, although some physicians believe that the eruptive typhus is less dangerous than the enteric typhus, we have in this country, during the last epidemia, proofs of its malignity, which led to the enormous mortality of 1 in 6 of the inhabitants in some places. Almost the same fatal mortality as happened here, occurred during the last epidemia in the Westmanna Islands. The physician of that place fell at the outbreak of the epidemia a victim to the typhus, and out of 400 inhabitants 40 died afterwards. In some parishes in the east part of this island it is related that the mortality sometimes rose to 1 in 3 of the affected.

Mortality of typhus is, as we know, very variable, according to the nature of the epidemic, constitution and other circumstances. In Hooper's "Physician's Vademecum," fifth edition, it will be seen, page 274, that the mortality of adynamic fevers in Edinburgh and Glasgow has very often been 1 in 10, and even 1 in 6 or 7, or as great as in some parishes of this island during the last epidemical typhus. From several articles in *The Lancet* I learn, moreover, that mortality of typhus in the hospitals of London is very often found to be 1 in 10, or even 1 in 8; and, according to Dr. Trier, of Copenhagen, the mortality of typhus and typhoid fever in that city has generally been 1 in 8, or sometimes 1 in 6. In Germany and France it is well known that the mortality from malignant fevers in the hospitals is generally 1 in 9, and sometimes 1 in 7; but in Russia, namely, St. Petersburg and Moscow, it is still less favorable, being in some epidemics 1 in 5.

It is generally accepted now-a-days, that physicians, before the determination on the adoption of a particular method of treatment, should always first inquire what would happen in this case if no remedies whatever were employed: or, in other words, if the patients were altogether left to nature, that is, to the efforts of their own constitution. Many renowned physicians will say, "The living machine, unlike the works of human invention, has the power of repairing itself. It contains within itself its own engineer, who, for the most part, in by far the greater number of cases, requires no more than some very slight assistance of our hands," &c. This is the fashionable talk of the most celebrated physicians in our time; but I have always thought that this principle is of as little use to medicine as it is unworthy of a science which now claims the name of an "exact learning." But fashion has a strange power, and thus this "inactive treatment" is become a general rule amongst the physicians of Europe in our century. In the meantime it seems to me that the modern medicine has by this principle involved itself in some contradictions, or why do we then cure scurvy with large doses of citric acid, inveterate syphilis with large doses of iodide of potassium, intermittent fever with bark, rheumatism by repeated doses of bicarbonate of potassa, lithic diathesis and oxaluria with larges doses of carbonates and strong mineral acids? Why do we at all give remedies for poisons? And if we give remedies against mineral and vegetable poisons, why not also for organic poisons? I hope that very few physicians will now-a-days deny the origin of malignant fevers from organic poison; but, if this is accepted to be true, why should we then not try by all possible means to destroy these poisons? Pure air is, no doubt, the most common destroyer of organic matter, and it is, I think, on this account that the modern ventilation has done so much good to prevent and cure malignant fevers. We may, I hope, go still farther, and clean out the organic poison from the human body by a right use of the principles of modern chemistry; but, leaving the destruction and elimination of fever poisons from the body to nature's efforts alone, we may, I think, very often be mistaken and disappointed.

Regarding the melancholy ravages of our epidemic typhus when it was allowed to run its own course, or whenever the patients were unaided by the medical interference, I can hardly doubt that my positive disinfecting treatment has been of some value, and I should indeed feel very happy if these few remarks could induce some of my dear colleagues to give it a fair trial.—*Edinburgh Med. Journal.*

OVERCROWDING OF MILITARY HOSPITALS.—In the French military hospitals 1700 cubic feet of air-space are allowed by regulation to each patient. In this country the minimum is fixed at 1000 cubic feet. And yet of our 150 military hospitals, we venture the assertion that not five per cent. allow 800 cubic feet of air-space to each patient, whatever may be their system of ventilation. In the majority 700 cubic feet is the maximum of air-space to each patient, and from this point hospitals may be instanced representing various figures in the descending scale as low as 250 cubic feet. And this last amount—little better than the famous Black Hole—is the maximum of air-space allowed in hospital buildings originally constructed for barracks, and almost destitute of ventilation. In large numbers of hospitals the beds are arranged at given intervals, without the slightest regard to the cubical area of the wards. The results of overcrowding are apparent in every hospital where it is practised, in the prevalence of low forms of fever, erysipelas, &c.—*American Medical Times.*

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, NOVEMBER 27, 1862.

We publish the following letter of thanks from the Governor of the State to Dr. Gay and the surgeons who accompanied him on his visit to Washington to aid in the care of the wounded after the unfortunate retreat of General Pope. Dr. Gay's admirable report has already been published in full, and a lengthened notice of it appeared in the Journal of Nov. 6th. The promptness of the members of the profession who have so often responded to the repeated calls of Government to assist in alleviating the sufferings of our wounded men, is most honorable to the body they represent, and the dignified and well-timed acknowledgment of the Governor is an evidence of his high appreciation of the services thus rendered to the State and country.

Commonwealth of Massachusetts, Executive
Department, Boston, Nov. 10, 1862.

To Geo. H. Gay, M.D., Boston.

Sir,—I have received from the Surgeon-General of the Commonwealth your report made to him under date of Oct. 1, 1862, of the observations made by yourself and the surgeons who accompanied you to Washington, on Sunday, Aug. 31st, in answer to a call made by the Secretary of War.

I take great pleasure in returning to you my most cordial and sincere thanks, in behalf of the people of the Commonwealth, for the prompt zeal with which you, with the gentlemen who accompanied you, responded to this sudden call, and for the invaluable services which you were able to render to the wounded and suffering soldiers of Massachusetts, lying upon the battle field and in the hospitals, thus proving to them that, though far from home and the tender care of friendly hands, their native State was not unmindful of their sufferings and wants. Your generous alacrity has reflected the highest credit upon you, attesting alike your zeal as patriots and the humanity with which you respond to the calls of your profession.

I would thank you, also, for the elaborate and carefully-prepared tables that accompany your report, and desire through you to make my most sincere acknowledgments to the gentlemen who accompanied you on this service.

I have the honor to be, very sincerely,

Your obedient servant, John A. Andrew,
Governor of Massachusetts.

Mr. Editor.—I take the liberty to ask whether room enough cannot be afforded on one of the pages of your Journal for such a table of French weights and measures as would enable those not familiar with them to find their equivalents in English. In the Journal of the 6th of November, page 286, is the following formula for hoarseness:—Liquid ammonia, 10 drops; syrup of Crysimum, 45 grammes; infusion of blossoms of the lime tree, 90 grammes; all to be taken in one draught. If this cured Napoleon I., some Yankee might be disposed to try it. But what is Crysimum? I do not find it in Dunglison's Dictionary, 1860, nor in Griffith's Dispensatory. I suppose that a large proportion of the readers of your Journal would require some time to translate a recipe from a French apothecary. Let our students of medicine at Paris, before sending a recipe to one of our journals, translate it, if they know how: or let there be a standing table in the Journal from which every country physician may cypher out the true English.

Query. What and how much was the "Royal potion" which Napoleon took with the effect of preparing his throat for making a speech?

A Reader.

In reply to our correspondent, we can only say that we are at a loss to conjecture what is intended by the word *Crysimum,* unless it be *Crysanthemum.* The latter is a mild tonic remedy, and is sometimes used in Europe in certain pulmonary affections, and its syrup might very well be combined with the other remedies mentioned above. It is possible that the syrup of orange, formerly known as *Chrysomelia,* may be the article referred to.

With regard to the employment of French terms in designating weights and measures, it may be said that all well educated physicians are supposed to be acquainted with their relative value; at all events, such a table as our correspondent suggests is already to be found in the United States Dispensatory, which is presumed to be, or ought to be, always at hand on the table of every practitioner. A *gramme* is the unit of weight according to the modern French system, and is about equivalent to fifteen of our Troy grains. A tenth of this, called a *decigramme,* according to the decimal system, would therefore correspond very nearly to our grain. The old French grain, also in use, is considerably less than our own, seventy-two constituting our drachm.

Berkshire Medical College.—The Commencement exercises of Berkshire Medical College occurred on the 19th inst., consisting of prayer by Rev. Dr. Todd; reading and defending theses, by candidates; conferring degrees, by President H. H. Childs; address to the Alumni, by Dr. E. N. Bostwick; Valedictory to the Graduates, by Prof. Wm. Warren Green.

The following gentlemen received the degree of Doctor in Medicine.

NAME.	RESIDENCE.	THESIS.
F. F. Brown, A.M.,	Sudbury, Mass.,	*Insanity.*
D. T. Brown,	Danby, Ill.,	*Signs of Pregnancy.*
G. T. Ballard,	Holland, Mass.,	*Vis Medicatrix Naturæ.*
Noah Cressy,	Rowe, Mass.,	*Animal Heat.*
George Collins,	New Gloucester, Me.,	*Diphtheria.*
Nathan Camp,	Troy, N. Y.,	*Typhoid Fever.*
C. R. Davis,	Greenport, N. Y.,	*Progress of Med. Science.*
D. B. N. Fish,	Amherst, Mass.,	*Duties of a Physician.*
E. A. Hutchins,	Keesville, N. Y.,	*Phthisis Pulmonalis.*
Thomas Henderson,	Amherst, Mass.,	*Gun-shot Wounds.*
E. B. Lyon,	Woodstock, Conn.	*The Medical Practitioner.*
O. E. Ross,	Cornwall, Vt.,	*Hæmoptysis.*
W. H. Scott,	Lanesboro', Mass.,	*Diphtheria.*
D. Saterlee,	Gale's Ferry, Conn.,	*Gun-shot Wounds.*
W. O. Smith,	Durham, N. Y.,	*Differential Diagnosis of Thoracic Disease.*
J. J. Towl,	Middlebury, Vt.,	*Sycosis.*
W. H. H. Varney,	Charlotte, Vt.,	*Tuberculosis.*
Isaac Poole,	Halifax, Mass.,	*Death.*
J. S. Talbot,	Wilmington, Vt.,	———

Cleanliness in Hospitals.—The great importance of perfect cleanliness in and about hospitals is well illustrated by the following facts mentioned by a writer in the *Chicago Medical Journal*:—

"I have charge of the flag hospital, which is made up of two wards or rooms, separated by a simple board partition, and there is one curious fact in this connection which is inexplicable to me, and that is, that the mortality in the two wards is as four to one. The number of patients in the two wards differs but little, and the care and attention on the part of the nurses is the same, and I am sure that there is no want of care as to ventilation, and still four die in ward eight for every one in ward nine. Neither is there any selection of patients; they are sent indiscriminately to either ward wherever a vacancy occurs. The ventilation of the two is alike. There is only one fact that seems to bear on it, and that is, that south of ward eight there were a number of privy sinks, and as our principal winds were from the southwest the stench from these came directly through this ward. Whether this was sufficient to account for it, with the free circulation of air which was maintained, or whether it was simply a coincidence, I am unable to determine; but sure I am that it was to me a very curious fact. This difference was not only for a week, by an accidental accumulation of bad cases, but was maintained during my entire service. Many who recovered of slight ailments, remaining as a matter of comfort or convenience for ration day, relapsed and died; so that at last I allowed none to stay longer than when they were able to go to their quarters."

HOSPITALS IN SAN FRANCISCO.—One of the largest of these noble institutions is St. Mary's Hospital, under the care of the Sisters of Mercy. "This fine building," says the *Pacific Medical and Surgical Journal*, "is situated on the corner of Bryant and First streets, in the eastern quarter of our city, on an elevated and healthy site, commanding a magnificent view of the Bay of San Francisco and the surrounding country. The portion erected is a little more than half of the contemplated hospital. It now measures 75 by 150 feet on the ground, and presents a fine front, four stories in height. The internal divisions are admirably adapted for the purposes designed. The ceilings are high, and the ventilation, light, &c., have been properly attended to. There are warm, cold and shower baths on each floor, with gas throughout the building. Besides twelve large and commodious wards, furnished with all the requisites usually found in the best establishments of the kind, there are a sufficient number of private rooms neatly fitted up, several of which are appropriated to midwifery cases. Patients in the general wards are charged $10 per week—including board, lodging, medical attendance and medicine; $20 in private rooms. The hospital is under the professional charge of Dr. Toland, as visiting surgeon, and Dr. M. W. Lee, as resident physician. Patients occupying private rooms may, at their option and individual expense, employ their own physicians. The French and German Benevolent Societies in San Francisco have large and comfortable hospitals, established for the purpose of affording assistance to sick members."

MEDICAL EXAMINATION BY CONCOURS.—As many of our readers are perhaps unacquainted with the mode adopted in the French Hospitals and Schools in the selection of teachers and professors, we quote the following from the Paris correspondence of the *London Lancet*:

"M. Devergie, one of the physicians of St. Louis, has written an interesting letter to the papers, in which he suggests certain important modifications of the existing programme for the *concours* of admission to the Bureau Central. As one of the judges in the late examination, by which MM. Luys, Parrot, and Tamarel-Mauriac, have been called to fill the existing vacancies, he has been struck by certain deficiencies, which he proposes to remedy. 'The *concours* for admission to the Bureau Central,' he observes, 'is the most important event in the life of the medical man of this capital. It opens to him the doors of the hospital, because the medical staff of this institution are called upon in turn to fill up the vacancies which, from age, resignations, or death, may occur. The number of candidates is often considerable (as many as thirty-six or forty for one, two or three places). Nearly all have been hospital *internes*, and some have presented themselves already seven or eight times.' The examination consists of two parts, one being for the purpose of elimination, the other for that of selection. If one vacancy only exist, five candidates are reserved from the whole number by the first process: if two, eight, and if three, ten. In the first stage of the *concours* there are two kinds of probation, the one *clinical*—namely, the examination of a patient for ten minutes—followed by a clinical lecture upon the case, *without time for reflection*, the lecture to last a quarter of an hour: the other, a *written examination*, the questions proposed being answered in three hours. For the concluding trial between the candidates reserved, a clinical examination alone is resorted to."

THE NEW PHARMACOPŒIA.—Several difficulties having arisen with regard to the new Pharmacopœia, Parliamentary interference has become necessary to remove them. A bill has accordingly been brought in by the Lord President, consisting of two clauses. The first provides that the General Council of Medical Education and Registration shall be deemed to be and to have been, from the date of its first establishment, a corporate body, with a capacity to hold lands for the purposes of the Medical Act. The second directs that the British Pharmacopœia, when published, shall for all purposes be substituted for the existing Pharmacopœias, and that any Act of Parliament, order in Council, or custom relating to any of these, shall be deemed, after the publication of the British Pharmacopœia, to refer to it.—*Edinburgh Medical Journal.*

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, NOVEMBER 22d, 1862.

DEATHS.

	Males.	*Females*	*Total.*
Deaths during the week, ...	42	32	74
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	37.0	36.8	73 8
Average corrected to increased population, ...	..	..	81.33
Deaths of persons above 90, ...	..	0	0

PAMPHLETS RECEIVED.—Address delivered before the Medical Class of the University of Vermont, by Charles L. Allen, M.D.—Catalogue of the Trustees, Overseers, Faculty and Students of the Berkshire Medical Institution, for the year 1862.

DEATHS IN BOSTON for the week ending Saturday noon, November 22d, 74. Males, 42—Females, 32. Accident, 1—apoplexy, 3—disease of the brain, 2—inflammation of the brain, 2—bronchitis, 2—cancer, 2—cholera morbus, 1—consumption, 17—convulsions, 3—croup, 4—cyanosis, 1—debility, 1—diphtheria, 1—dropsy, 1—dropsy of the brain, 3—epilepsy, 1—scarlet fever, 4—typhoid fever, 2—hæmorrhage, 1—disease of the heart, 2—infantile disease, 2—disease of the kidneys, 1—congestion of the lungs, 1—inflammation of the lungs, 2—marasmus, 2—old age, 1—pericarditis, 1—premature birth, 1—puerperal convulsions, 1—suicide, 2—unknown, 5—whooping cough, 1.

Under 5 years of age, 26—between 5 and 20 years, 10—between 20 and 40 years, 18—between 40 and 60 years, 12—above 60 years, 8. Born in the United States, 51—Ireland, 15—other places, 8.

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ENORMOUS HYPERTROPHY OF THE OS AND CERVIX UTERI, FORMING AN EXTERNAL TUMOR, AND ENTIRELY RELIEVED BY EXCISION.

By Henry A. Martin, M.D., Surgeon U. S. Volunteers.

[Communicated by Dr. J. Mason Warren to the Boston Society for Medical Improvement and to the Suffolk District Medical Society.*]

Mrs. M., negress, aged 55, formerly a slave in Alabama. She gave birth to her first child twenty-seven years since; labor was not unusually severe, and nothing unusual followed it. Her second labor took place twenty-four years since, and was natural, but two months afterwards she noticed a tumor protruding from the vulva. Seven years after this, she miscarried in the fifth month. The next year she became again pregnant, went to her full time, and after an extremely tedious and exhausting accouchement of six days was delivered, without instrumental aid, of a living male child. During the entire term of pregnancy and parturition, the tumor, now of greatly increased size, continued to be external. The patient assures me that the child passed through this external tumor in the act of delivery. She again became pregnant in three years, but miscarried in the fifth month, and within the following year was again twice pregnant and each time miscarried in the third month.

Mrs. M. first became my patient about twelve years since. I found her suffering from extreme pain in the inguinal and lumbar regions, but not confined to these, with tenderness of the entire abdominal surface—symptoms, in fact, of severe dysmenorrhœa. She had suffered from such attacks, generally at the menstrual period, for many years, and their severity had been greater at each successive attack.

On examination of the tumor, which protruded from the vulva, I found it of the form and of about three fourths of the size of the plaster cast which accompanies this narrative. In this necessarily very hastily written paper, I cannot give anything like a history of the case for the twelve years it has been in my care, nor would it be of much interest to know of the many contrivances which I made, with a view to promote the patient's comparative comfort; for the adaptation of neither of them was followed by more than very partial success. Among other devices I made a gigantic pessary, in the manner of Simpson and Valleix, with an intra-uterine stem nearly as large as the fore-finger, rising from a shield three inches in diameter. This was connected with a steel wire of proper curve and elasticity, and attached to an abdominal belt. From this contrivance I expected great things, and attained greater than, I think, has, in the hands of anybody but Simpson, been found to result from the employment of the "great original" from which it was drawn. I think that such an instrument might be of some use for a patient not obliged to make any considerable exertion; but cases of "*Procidentia*" in its various forms are found generally among those who drag out a weary existence at the hard price of constant toil. In the case of Mrs. M., the pressure made by the tumor itself and by the action of the abdominal muscles on the uterine mass during her daily labor, was found too great for any amount of mechanical support which could be thus supplied, and the machine was abandoned, as were all others, except a bag of strong but soft linen made to fit the tumor loosely and attached to a perinæal bandage and an abdominal belt. This she continued to wear till the removal of the tumor. Mrs. M. continued to suffer from the attacks referred to, and to such an extent that, for perhaps the third part of each year, she was confined to her bed, helpless and suffering extremely. Rest, in the recumbent position, the free use of opiates, and fomentations to the abdominal surface, constituted the chief treatment. At ordinary times the tumor was painless, even on pressure, but at the period of the attacks became very sensitive, and particularly at the portions of its surface which were ulcerated. It was my practice to cover the entire protrusion with woven lint spread with simple cerate or ointment. Beyond these merely palliative measures, I thought much as to how I might afford some more enduring relief to the patient, for she was poor and grateful for every kindness; she was one of those of whom Boerhaave (who did not always practise as he preached) said, "The poor are our best patients, for God is their paymaster." Certainly the gratitude and attachment of this poor woman has been the very best and richest professional fee I have ever received. I touched the ulcers with the nitrate of silver often enough to ascertain that such treatment would be inefficacious in this instance. During the first years of my attendance, it was possible to return the tumor within the vagina, so that its distal extremity lay just within the vulva. I found, however, that when retained in this position for a few hours, abdominal uneasiness commenced and increased, threatening one of the attacks from which so much suffering was experi-

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* The specimen, with the cast, has been presented by Dr. Martin to the Warren Museum.

[illegible]. I abandoned, therefore, any attempt to diminish the vulvar aperture by an operation for this reason, and because, also, I felt assured that the septum produced by the union of the vaginal surfaces would not resist the constant pressure of so large a mass. I then took into consideration plans for the removal of a considerable portion of the diseased mass, and concluded that, when menstruation should have ceased, I would do so by amputation or resection. The patient was about 45 years of age, and menstruated regularly, but it was to be supposed that she would not much longer. I told her that, when menstruation should have ceased, I would operate, and she consented; but month after month and year after year passed on, and regular menstruation continued.

In the spring of 1861, offers having been made to me of a desirable position in the army, I contemplated leaving Roxbury, and Mrs. M. begging me to do anything before my departure which might afford her permanent relief in my absence, I proposed and performed the amputation of the entire os and a large portion of the cervix uteri on the 29th of May.

The patient was instructed to take moderate doses of castor oil on each of the two days preceding that appointed for the operation, and on the morning of the day a light breakfast of gruel. The following measurements of the protruded mass were ascertained previous to the operation. From anterior commissure of labia to extremity of tumor, 4½ inches. From posterior commissure to extremity of tumor, 5 inches. Diameters—transverse, 3¼ inches; vertical, 3¼ inches. A catheter introduced into the *os* could be passed up three inches without meeting any obstruction; at that point the canal narrowed, but, by slight manipulation, the instrument passed five and one quarter inches farther, till its extremity was stopped by the *fundus* of the organ. At and about the *os* were five ulcers, from the size of that obsolete coin the quarter dollar, to about half that size. Transversely on posterior aspect, 2¾ inches from its extremity, and corresponding to the point where, when the patient was seated, the tumor was bent upon itself, was a narrow ulceration two inches in length. It was decided to amputate at a point one fourth of an inch above the upper edge of this ulcer, or two and three quarter inches from the end of the tumor posteriorly and two and a half inches from the end anteriorly. I apprehended that hæmorrhage might be troublesome, not from the dense tissue of the cervix itself, but from the hypertrophied parts around it. I prepared, therefore, to surround the mass with the wire of a strong ecraseur, divide the tissues down to the uterus with this instrument as fully as possible, and complete the operation with the knife. Previously to putting the patient into the anæsthetic condition, a cast was taken of the tumor *in situ*, which served as a mould for that which I gave you the other day, and which gives a perfect idea of its size and form just before removal. Anæsthesia was induced by my friend Dr. Nathan Hayward, then of Roxbury, but since and now, Surgeon of the 20th Regiment Mass. Volunteers, whose aid and counsel in every step of this operation, as of many others, was of the greatest value to me. An incision to the depth of about an eighth of an inch was made around the protrusion at the point before mentioned; into this circular incision the wire of the ecraseur was placed, and its tightening was commenced and continued in the usual manner. When the integuments of the uterine mass were partially divided, the wire was cut by the imperfectly finished edge of the steel canal through which it passed. The ecraseur was consequently abandoned, and the operation completed by the knife. In dividing the tumor, I varied from the line at first intended, so as to include, in the part removed, a still larger portion of the uterine tissue. After the amputation was completed, the stump, of a form so concave as to nearly resemble a hollow cone, was retracted within the vagina, with the exception of a portion of the posterior integument (attached, in the specimen, by a thread to the larger mass), which was also removed.

The hæmorrhage was not great. No vessels were tied, nor do I think that any means more than the application of ice and of the solution of perchloride of iron would have been needed, with a view to its arrest, were it not that my orders in regard to the light breakfast were disregarded, and a regal repast of "*greens*" substituted for the frugal one of gruel which I had directed. The consequence was that, when the effect of the chloroform had partially subsided, violent vomiting came on and continued, very seriously to the operator's discomfort in many ways, and, of course, increasing the danger of continued oozing from the wound. A considerable mass of cotton "wool," saturated in a solution of perchloride of iron, was introduced into the vagina, which was afterwards perfectly "plugged" with dry cotton; a band placed around the abdomen, to which a perineal bandage was attached, and the whole securely fastened so as to resist the violent downward abdominal pressure accompanying the vomiting. The next morning, this dressing was removed; there had been no hæmorrhage, nor was there subsequently, nor was any dressing used except a piece of patent lint smeared with cerate, which was each day thrust up the vagina, so as to come into contact with the wounded surface; even this was discontinued in about ten days, long before which time the patient had been sitting up, and feeling quite well.

On the 20th day of June (twenty-one days after the operation), I went to Fortress Monroe and left my patient doing very well, "up and about" every day; the discharge from the vagina was very slight, and the portion of the wound remaining uncicatrized was not larger than a quarter of a dollar.

Three months after this time, I was summoned to Mrs. M. and found her suffering extremely. An examination revealed an entire occlusion of the uterine canal, and the cause of the suffering to be a retention of the menstrual fluid; an opening with a narrow bistomy was easily made, and gave issue to the immediate cause of trouble. I have twice since had occasion to repeat this operation for the same reason; the last time was about three months since, when I took occasion not only to open the canal, but also to resect a portion of its walls at the point where it was contracted. Yesterday, I examined the patient and found a sufficient opening to exist, and its appearance leads me to hope that it will not again become occluded. At the same time, I introduced a probe to the fundus, and found the length of the uterine cavity to be just 4¼ inches. I twice attempted to prevent the closure of the uterine cavity by the introduction of smooth tubes of silver and gutta percha, but in both instances such a degree of pain and sympathetic disturbance rapidly supervened that further similar attempts were not made.

In concluding this very imperfect narrative, I would state that the result of the operation has been all that could be desired. When it was first suggested to the patient, I was not aware of the labors of Huguier, whose elaborate and exhaustive work, with its numerous illustrations, I have only met with during the last year.

I diagnosticated the case to be one of pure hypertrophy of the os and cervix, and nothing more, notwithstanding its great size, and had long before concluded, from a careful perusal of Lisfranc's cases, that any simple hypertrophy of the os and cervix might be safely removed for good cause. I am aware that I might extend this report almost indefinitely, with the usual historical preface and peroration; such additions might not, to a certain extent, be destitute of a good deal of interest. Extreme occupation, arising from my approaching departure for a very distant post, precludes, however, anything of the sort at present. I would, however, indicate, to those desirous of studying the subject of these operations further, that the great work is that of Huguier, of some three or four hundred pages quarto, and very numerous large plates. A copy of this book is in the **Treadwell Library.**

In the recently published French translation of Scanzoni's work on the diseases of the female sexual organs (Paris, Ballière & Co., 1838), is a very good article, by the translators, on amputation of the cervix: references to cases probably similar, and similar operations, are to be found in the older writers, Paré, Levret, Boyer, Dupuytren and others. Dr. A. K. Gardner, of New York, and Dr. J. M. Sims, of the same city, have amputated the hypertrophied cervix; the first in one case (which is reported in an elaborate and valuable article in the numbers of the *American Medical Times* for the 5th and 12th of July of the present year), the second in several cases, published in an illustrated pamphlet. The portion removed by Dr. Gardner weighed ℥ iv., ʒ ij., ℈ ij. Dr. Sims's cases *reported* are all of slight intra-vaginal hypertrophies, similar to those so frequently, easily and successfully removed by Lisfranc and others. I did not weigh the mass removed by myself, but judging by the measurements given above and verified by the cast, and the weight (℥ v.) of the specimen shrunk to less than half of its original size after sixteen months immersion in alcohol, it must have been twice or even thrice greater than that removed by any Cis-Atlantic surgeon. Many of the tumors figured in Huguier's vast book are even larger than that which protruded in my case; but in mine the whole mass was the *hypertrophied* os and cervix and integuments, while in *his* the bladder, rectum, and other organs and parts of organs, went to swell the enormous mass; and I *think* I am right in saying that in none of Huguier's cases was so large a portion of the uterine tissue removed as in mine. I do not say this *positively*, for I do not pretend to say that I have thoroughly read the enormous work in which a very simple operation, involving but few principles, and those easily to be understood, is explained in several hundred closely-printed quarto pages. I have essayed the task several times, and failed; perhaps some more industrious and persevering student may convict me of an error.

An appearance to which I omitted to allude before, and which can be noticed now in the specimen, is the blackish hue of portions of the thickened and altered membrane investing the tumor; this, in view of the patient being a Negress, is of some physiological interest. I would also call attention to the fact that the patient (now 55 years of age) still menstruates regularly and profusely.

Roxbury, Oct. 25th, 1862.

VISIT TO MILITARY HOSPITALS IN MARYLAND.

[Communicated for the Boston Medical and Surgical Journal.]

To his Excellency John A. Andrew,
Governor of Massachusetts.

My Dear Sir,—In accordance with your request that I would visit the hospitals at Frederick, Md., and in the neighborhood of the battle-field of the Antietam, I left Washington on the 13th of October for that purpose.

I passed one day at Baltimore, and visited the camp of the 38th Regiment and the Stewart Mansion Hospital, of which I have already written you. I examined also, with much satisfaction, the extensive and liberal arrangements which have been made by the Soldiers' Relief Society of Baltimore for supplying the wants of regiments passing through the city on their way to the seat of war. Mr. Robinson, the Mass. State Agent, was not present when I called, but I was very kindly conducted through the rooms by Mr. E. J. Norris.

I arrived at Frederick on the 15th, and at once began my examination of the condition of the hospitals, and inquiries into the wants of the Massachusetts soldiers there. Many of the churches in Frederick have been converted into hospitals, besides which, extensive additions have been made to the old barracks hospital, and two large tent hospitals have been established about a mile from the town, each capable of accommodating five hundred patients.

The whole number of sick and wounded soldiers in the hospitals at Frederick is estimated at five thousand. Many of these have been removed hither from the houses, barns, and smaller hospitals temporarily established near the battle-fields, and others are daily arriving. It was gratifying to find that notwithstanding the large number of patients so suddenly collected here, the accommodations provided for them were generally so good and their wants so well attended to. I was informed that the residents of the town had shown great interest in the sick and wounded soldiers, and I myself saw many ladies visiting the hospitals and kindly administering to their wants.

I visited fifteen hospitals in Frederick, and in all of them found men from the Massachusetts regiments. They seemed generally well cared for, and satisfied with the treatment they had received. They were much pleased with the assurance of your continued interest in their welfare, and were particularly gratified with the accounts, which had already reached them, of your efforts in Washington, to obtain some change in the system of furloughs. The most frequent and anxious inquiries of the men in all the hospitals related to this subject, to which I shall recur hereafter.

Among so many hospitals, it was hardly to be expected that all should be equally well conducted, and I regret to say that in some of them I saw evidences of neglect or incompetence on the part of those in charge. These cases I brought to the notice of the Surgeon-General, who had requested me to give him the results of my observation, and of Dr. Steiner, the excellent Sanitary Inspector at Frederick. One cause of suffering was the delay in the arrival of medicines and hospital stores, owing to some obstruction of the transportation at the time of my visit. I have since received a letter from Dr. Steiner, in which he informs me that these difficulties have been removed, and also that some other evils of which I had spoken have been obviated.

I left Frederick on the afternoon of the 16th for Boonsboro', passing through Middletown. At the latter place I found three Massachusetts men, in a church which was used for a hospital. They were too severely wounded to bear removal to Frederick.

Between Middletown and Boonsboro' the road passes over the South Mountain battle-ground. The position of the rebels on the sides of this mountain was very strong, commanding the road for several miles. Our forces were aided in the attack by certain loyal residents, who, being well acquainted with the ground, led our men by circuitous routes along the base and up the sides of the mountain, thus enabling us to flank the enemy, both on his right and left. Without this aid, our loss in driving them from their position would have been very great.

At Boonsboro' I found that nearly all the wounded who were first brought there had been removed, and no Massachusetts men remained.

I left Boonsboro' on the 17th for Keedysville. This town was in charge of a company of the Massachusetts 18th, under Capt. Collingwood, who was Provost Marshal. Capt. C. accompanied me to the hospitals in the neighborhood, and afterwards to the battle-field of the Antietam. There are two hospitals near Keedysville—at Locust Springs and Smoketown. The former contained 175 patients, and the latter 533. Of these, 58 were from Massachusetts. I have already forwarded to you the list of their names.

At these hospitals the proportion of severely wounded men is greater than at other places, owing to the fact that nearly all of those able to bear transportation have been removed. The town is so near the battle-field that many of the severest cases were first treated here, and those that remain have been collected chiefly in the two hospitals which I have named. They are tent hospitals, but the wounded receive as good care perhaps as at any other place. The Smoketown hospital, under the care of Dr. Van der Kieft, was particularly well arranged. The results which I witnessed from the operations of this able surgeon, particularly the resections at the elbow- and shoulder-joints, were remarkably successful. At the Locust Springs hospital, the surgeons gave the usual unfavorable accounts of the results of secondary operations, many of the cases being such as required primary amputation. Their experience confirmed the fact of the vastly greater danger to life from secondary amputations, than from those performed immediately after the receipt of a wound requiring the operation.

From Keedysville I drove to Sharpsburg, passing over the right and centre of the Antietam battle-ground. I crossed the corn-fields rendered famous by Hooker's brilliant exploits, and examined the little church beyond, pierced through and through by shot and shell. The woods in the rear of this church bore evident marks of the fierce struggle which took place at this point.

The bodies of our dead had been collected after the battle, and buried on the field, their graves being marked, in most cases, by plain headboards, with inscriptions indicating the names and regiments of those beneath.

On my arrival at Sharpsburg, I was informed that very few except the rebel wounded were left at that place. I saw, however, several Massachusetts men in the German Reformed and Lutheran Churches, which were used for hospitals.

From Sharpsburg I returned to Washington, by way of Harper's Ferry, arriving on the evening of the 18th of October.

On my return, I continued my visits to the hospitals in Washington and the neighborhood, and communicated to Surgeon-General Hammond the results of my inspection. I have the satisfaction of believing that some of the suggestions which I made to him regarding the condition of certain hospitals, have been already acted upon.

From the sketch I have above given, your Excellency will perceive that, in the necessarily short visit which I made to each hospital, with the limited time at my disposal, I was not able to see every Massachusetts soldier, or to inquire very fully into each case. To do this would have required as many weeks as I have spent days in the duties assigned me. I believe, however, that my journey has not been without some beneficial results. It was soon known among the men that I was present, at your request, to inquire into their condition and wants, and the knowledge of this fact seemed to give much satisfaction.

I was able to be of service to some by giving information to friends of their condition, by forwarding messages or funds, and in other ways. I have already suggested to you, by letter, some of the cases which seemed to require attention. I will, however, add here some more general observations in regard to the hospitals and their inmates.

First. It is clearly the intention of the government to supply all that is needed for the support and comfort of soldiers in the hospitals, and I believe the provision now made is ample, if properly administered. The experience of those who have the good fortune to be assigned as patients to those hospitals where the surgeon in charge fully understands the administrative as well as the strictly surgical part of his duties, shows that not only comfort but even a certain approach to luxury can be attained from the judicious application of the regular hospital incomes. When the surgeon in charge is incompetent as a manager, or indifferent to the comfort of those under his care, or so overworked as to be obliged to neglect some of his duties, the patients suffer. In cases also where the hospitals are far removed from the centres of supply, or are new and not yet in working order, temporary inconveniences may be felt. But I am happy to bear testimony to the readiness both of the Secretary of War and of the Surgeon-General at Washington, to listen patiently to all complaints coming from a respectable source, and to act promptly in applying the proper remedies for such abuses or deficiencies as may be clearly proved to exist.

Next in importance to the surgeon in charge of a hospital, is the steward who has control of the daily supplies. A large proportion of the complaints of suffering from want of proper food and care, may be traced to incompetence or dishonesty in the management of this important department. Dr. Bliss, the able and successful surgeon in charge of the Armory Square hospital at Washington, told me that he had made a saving in the purchase of the supplies for his establishment, of from twenty to *ninety* per cent. on some articles, by the employment of a steward in whose fidelity and skill he had perfect confidence.

But notwithstanding the best intentions on the part of the government, the machinery for the supply of so large an army has become so immense, that many cases of suffering must still arise from unavoidable interruptions to the transmission of its supplies, and from occasional dishonesty or incompetence in those who are charged with their distribution. The great benefit which the Sanitary Commission has rendered to the army by its careful oversight of the hospitals, and by its constant contributions for the comfort of those in want, can only be appreciated by those who have seen its operations. By coming to the aid of the government at times when it is almost impossible to obtain all that is needed by the regular channels, it has performed incalculable service to the country.

Second. The subject of furloughs is one which has been often brought before me from the very frequent and urgent requests made to me for aid in procuring them. Your Excellency will remember that the Secretary of War and General Halleck stated to us in conversation at Washington, that when a very liberal policy in regard to furloughs was first adopted, the abuses were found so great that the present stringent order was issued—an order which if rigidly enforced would prevent any furloughs from being granted. The objections to a too loose and indiscriminate granting of furloughs are obvious. It is undoubtedly true, that, in our best hospitals, the patient is usually more sure of good treatment and proper care, than he would be in his own home. The country needs his services at the first moment of his recovery, and the first duty of a soldier is to his country. He should not be allowed to desert his post even temporarily, except for special reasons, and furloughs should not be allowed for any slight cause.

But, on the other hand, when a wound or a disease is likely to produce permanent disability, unless the patient is removed—when the affection must continue for months, and may as well be treated out of the hospital as in it—and in many other cases not necessary to be specified here, the granting of furloughs becomes a matter of justice as well as of expediency, and it should be the duty of the surgeon in charge to examine his wards periodically for this purpose, and to recommend such as are entitled to furloughs to the proper authorities. Some modification of the present orders are imperatively demanded. But whatever other changes may be called for, it is essential that all merely *formal* obstacles to the obtaining of furloughs should be, as far as possible, avoided. The same is true in regard to discharges for disability. The delays and discouragements which now arise from the mere difficulty of getting the necessary papers through the regular official channels, are among the hardest trials of the patience and patriotism of our soldiers. When the surgeon in charge is satisfied that a furlough or a discharge is proper, it is due to the feelings and the rights of the sick or disabled man that it should be obtained without unnecessary delay.

Third. I have already referred, in a letter, to the inconveniences suffered by some of our men in the hospitals from the want of the proper papers and descriptive lists, to enable them to draw their pay, or to secure their claims against the government. This evil arises probably, in most cases, from the neglect of company officers to furnish the proper papers, and sometimes from the carelessness of the men themselves, in suffering the papers, once made out, to be lost. Several of the men whom I saw at "Camp A," near Frederick, had much anxiety on this account. At the same hospital some members of the 35th Mass. Reg't were suffering from the want of clothing and other articles contained in their knapsacks, which had been left behind in camp, on the march to Antietam, and had not yet been forwarded.

Fourth. In my visits to the hospitals I have had frequent opportunities of conversing with the wounded soldiers of the rebel army, lying side by side with our own men, and receiving the same kind care and attention from our surgeons. I have seen men from almost every southern State. They have almost invariably spoken of the war with regret, and many of them confessed to me that they were never in favor of it, but always opposed it as long as it was safe for them to do so. They have been forced into the rebel army by the conscription or by fear of it, and have no heart in the cause of the confederates.

I cannot conclude this very imperfect report without expressing the feelings of renewed hope and encouragement with which I have returned from the performance of the sad yet grateful duty entrusted to me. On my first visit to the hospitals of wounded men, a few days after the battle of Ball's Bluff, at Poolesville, a year ago, I was profoundly impressed with the fortitude and cheerfulness with which they bore all their trials and sufferings. The same impression has been made upon me by my experience among those wounded at these later battles. Except from those suffering actual and severe bodily pain at the moment, one may pass through these hospitals, filled with men subjected to every kind of cruel mutilation, or attacked by incurable disease, without hearing a groan or a complaint. I believe that as many instances of manly courage and of heroic bravery may be found here, as on the hardest fought battlefields. The same spirit of patriotism that led these earnest men to devote their lives to their country's service, now inspires them to suffer everything for her cause with patience and resignation. The thought that they have been tried and not found wanting in this great contest, seems to buoy them up with a feeling almost of pride and exultation, as they point to their honorable wounds and talk of the battles in which they have taken part.

We owe a deep debt of gratitude to the brave men who have nobly done their duty in the field, and I feel more than ever how richly they deserve every care and attention we can offer to them, in the long days and nights of suffering and privation which they are now called upon to endure for our cause.

I am, Sir, with great respect, very truly yours,
Boston, November 1st, 1862. L. B. Russell.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

Oct. 27th.—*Diphtheria and Croup in the same Family.*—Dr. Minot said he was called, on the evening of Oct. 22d, to see a little girl, 4½ years old, who was suffering with dyspnœa, stridulous cough and fever. The tonsils were covered with patches of lymph. A sister of the patient, about 6 years old, had died rather suddenly a fortnight previously, and Dr. M. subsequently learned from Dr. W. E. Townsend, who attended her, that the case was one of well-marked diphtheria, and that there had been no dyspnœa. An infant in the same family, eight months old, also had cough, and a deposit of lymph on the tonsils.

The next day Dr. Jeffries saw the patients in consultation. The oldest was worse in all respects. A strong solution of nitrate of silver was applied to the fauces of both children, alkaline remedies with demulcents given internally, and the room ordered to be kept filled with steam.

The third day, Oct. 24th, all the symptoms in the oldest child were aggravated. The respiration was very labored, the voice whispering, and the lymph had extended farther on the tonsils. It was evident that the child would die in a few hours unless relieved. There was but little lividity of the countenance, and the condition of the patient seemed favorable for the operation of tracheotomy, which Dr. M. did on the spot, with the assistance of Dr. Jeffries. The immediate effect was great relief, and the child was quite comfortable for twenty-four hours. The breathing was easy, the pulse at 120, and the patient took nourishment freely. In twenty-four hours, however, the symptoms gradually returned, and seemed to be dependent on a copious secretion of purulent mucus, which was expelled from the tube with great difficulty, and which required the inner tube to be removed and cleaned very frequently. This increased in abundance and tenacity, and the child died, apparently from exhaustion, on the morning of the 27th, having lived sixty-six hours after the operation. There was no *post-mortem* examination.

In the meantime, the infant steadily improved after the application of the caustic, and in a few days was well. The circumstances of the family were not favorable for carrying out the treatment after the operation, otherwise Dr. M. was strongly inclined to believe that the elder child might have been saved.

Nov. 10th.—*Diseased Lungs of a Python.*—Dr. J. Wyman exhibited the lungs of a large python (P. Sebæ), from Africa, which had recently died in a menagerie. The following morbid appearances were noticed, viz.: several ulcerations about the mouth, forming deep cavities between the jaws and integuments; and, in addition, a somewhat extensive disease of the lungs. This last had existed in several stages: 1st, one or more air pouches were filled with a whitish, cheese-like substance, resembling crude tubercles; this was confined to the free surface: 2d, this deposit had become softened and readily separated into a granular substance, in which were found epithelium cells, a few shrivelled cells containing granules, and amorphous materials. In this stage the walls of the air pouches are destroyed by ulceration, when several of them are converted into a common cavity, leaving the walls of the lung exposed. In the 3d stage, that of cicatrization, the cavity formed by ulceration is contracted, its edges puckered, and drawn more or less towards the centre of it. Of this stage there were numerous instances.

Many parasites were found in the œsophagus, stomach and lungs, the most remarkable of which was a species of Linguatuta (*L. armillata*). Of this, there were found in the lungs six specimens, all but one females—the largest measuring six inches in length and about one third of an inch in diameter. The oviducts of these females were greatly distended with eggs, and their spermathecæ with seminal filaments.

This parasite is generally present in the lungs of the python; other species of the same genus have been observed in the lungs of the boa, the rattlesnake and other serpents.

Nov. 10th.—*Exostosis from the Scapula of an Ox.*—Dr. JACKSON showed the specimen, which he had received from Dr. Samuel Cabot, Jr. It was from an animal that was slaughtered for the market, and the surrounding parts were perfectly healthy. The tumor was about equal in size to a small hen's egg, and of quite an irregular form, so as to suggest the idea of a branched renal calculus. Having been sawn through, it was seen to consist throughout and quite to the surface of a coarse bony structure; and the most interesting pathological fact in the case is, that the tumor arises not from the bone itself, but from the broad cartilaginous expansion that arises from it: the bone being continued from the tumor and to some extent quite through this last. In connection with this case, Dr. J. referred to the fact that the costal cartilages, when fractured, will sometimes, if not generally, unite by bone; there being a specimen of such union in the College Museum.

Nov. 10th.—*Melanosis of the Eyeball.*—Case reported by Dr. BETHUNE.

J. B., clergyman, was first seen June 25th, 1860. Age, 54. Health good. First attacked in right eye four years ago, with failing sight; blind in this eye for three years. For one year, occasional pain in and around eye. Present attack, three weeks. On examination, left eye well, except lachrymation and photophobia, when right is affected. Right eye—Iris greenish: pupil filled with cataracts; conjunctiva generally injected; pain severe at night; cornea punctured and aqueous humor discharged. Ice-water to eye. Morphia at night, p. r. n. Liquid diet.

June 27th.—More comfortable. Operation—cornea re-punctured.

30th.—Relieved till to-day. Cornea again punctured.

July 6th.—Comfortable till to-day. Cornea punctured with a larger opening. The cornea was twice more punctured, but finding the relief, though great, was but temporary (and as uneasy sensations and spectra began to attack the left eye), on the 21st, the lens, with a portion of the vitreous, was extracted through the cornea.

28th.—Comfortable, but feels languid. Eye discharges freely.

Aug. 25th.—Tolerably comfortable. A fungus projects from incision; removed.

26th.—Comfortable. Meat.

29th.—Sloughy protrusion touched with nitrate of silver.

Sept. 19th.—Much improved. Protrusion gone. Large vessels still seen at the inner and lower part of cornea.

Oct. 2d.—No pain at report. Discharged.

This patient was seen occasionally for one year and a half after, and he remained without pain, with general good health, till last spring, when he began again to have pain, lately very severe, and Nov. 10th, 1862, was re-admitted to the Infirmary. On examination, lids swollen, great chemosis, protruding between lids. Three leeches. Lotion of diluted alcohol, cold. Liquid diet. (Left eye well, except slight photophobia.) The chemosis of conjunctiva was partly removed with forceps and scissors.

18th.—The effects of the late attack have subsided, but it was thought best to remove the globe. On cutting through the ball, it was found filled with melanotic deposit, but the sclerotic, choroid and retina were apparently healthy.

The melanotic growth occupied the situation of the vitreous humor, and filled a large part of the posterior chamber of the eye. Sclerotic healthy, except at one point, where it was beginning to be involved in the disease, but this last did not appear externally. Globe not enlarged.

Nov. 10th.—*Injury to the Œsophagus by Potash.*—Dr. JACKSON showed the specimen, which he had received, with the history of the case, from Dr. George Faulkner, of Jamaica Plain. The patient was a negro, 72 years of age, and by mistake drank a solution of potash which his wife had prepared for washing. He at once took a large quantity of sweet oil, and had very little trouble at the time, though he continued to feel the effects of the caustic. Four months afterwards he entered the hospital for a few weeks, where he reported that he had had dysphagia from the first, and had lived mainly on a liquid farinaceous diet; probangs were used, and there was reported a stricture five and a half inches from the incisor teeth. He subsequently improved in flesh and spirits; but the probang was used until some weeks before death, when he said that he could swallow well enough without it. He died, nine months from the time of the accident, and from a general decline rather than from starvation.

The effects of the caustic are seen to commence about six and a half inches from the lower extremity of the œsophagus, and to extend downwards about three inches. The inner surface is quite rough; and to the extent of half an inch or more above the lower margin, which is very defined, the muscular coat is destroyed, which last is nowhere the case higher up. Superiorly there are no defined limits between the injured and the sound parts. The passage does not seem contracted, but the diseased tissues are not distensible, as they are above and below; thickness very little if at all increased, and where the muscular coat is destroyed the tissues are thin and lax. Above the diseased part the œsophagus is smaller than it is below; but neither is at all remarkable.

Nov. 19th.—*Extensive Disease of the Aortal Valves.*—Dr. Jackson showed the specimen, which he had received, with the history of the case, from Dr. G. L. Collins, of Providence, R. I. The patient was a machinist, 49 years of age, and had been engaged in active business, which he gave up about twelve years ago on account of his health. Twenty-three years ago he had a severe attack of acute rheumatism, which continued through the winter, and seven years ago he had a similar attack which lasted nearly as long. About four years ago he was taken suddenly, in the street, with faintness or dizziness, and a loss of consciousness for a short time; and he had subsequently seven or eight similar attacks. On the 14th of August he went to Saratoga; and œdema having first appeared the previous week, it increased so that, after two weeks absence, it was with difficulty that he could get home. He died on the 8th of September; having been unable to sleep in the horizontal position for the last five or six weeks.

Dr C., who was called upon to make a *post-mortem* examination, never saw the patient but once during life, and that was in February last; but the symptoms and physical signs then indicated very clearly the condition of the heart. There was great œdema of the cellular tissue, with about a quart of serum in each pleural cavity, though but little in the pericardial or peritoneal. All the organs were sufficiently healthy, excepting the heart, of which the surface showed traces of former inflammation. The parietes upon the right side were thin, but those of the left much thickened. The valves upon the right side were nearly healthy; the mitral being somewhat involved in the disease, though able to perform its functions pretty well. The aortal valves, which were shown to the Society, consisted of a thick, rough, ossific or cretaceous mass, and the passage for the blood was a narrow, unyielding, semilunar chink.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, DECEMBER 4, 1862.

Dr. Jarvis's letter to the Surgeon-General, which we publish this week, will be found full of practical suggestions of the first importance to the sanitary condition of our camps, and evinces the wisdom of Surgeon Dale both in discerning the necessity of the visitation and in the selection of Dr. Jarvis for the service. It will be seen that much remains to be done towards the entire healthfulness of our barracks; and the sound suggestions contained in the report, based as they are upon the most careful investigations, will, we are quite sure, not be disregarded.

It is encouraging, in view of the shortcomings hitherto noticeable in some of our medical officers, and naturally owing, in most instances, to inexperience, to find evidences of a decided improvement in this department. Dr. Jarvis states, in another communication, that the surgeons whom he has found this year in the camps manifest a far, very far higher idea of their responsibility for the troops than those found last year. "They feel much more anxious to know how to keep the camp in good order. They watch the barracks, kitchens, privies, &c., more. They want books to teach them how to transform the citizen into the soldier without impairing health or efficiency. I find," Dr. J. goes on to say, "the surgeons much more frequently present in the camp this year than last. Last year, of 31 whom I should have met at my several visits, I found only 8. This year they were generally present. Last year, they rarely spoke of camp police; this year, this seems to be their principal subject of conversation and burden of anxiety." This cannot be charged, as Dr. J. properly suggests, to the change of men, but rather to a progress in the knowledge of the laws of hygiene. Our Surgeon-General has done wisely in eliciting the facts and hints contained in the report of Dr. Jarvis, and a prompt compliance on the part of our medical authorities will at once place our troops under more healthful influences than they have hitherto enjoyed.

Surgeon-General Dale. DORCHESTER, MASS., OCT. 31, 1862.

DEAR SIR,—Since I received your note authorizing me to do so, I have visited the camps, as I had done, since their first formation in Massachusetts.

I have lately carefully examined those at Worcester, Groton, Boxford and Readville; and in accordance with the permission granted in your note, beg leave to make the following suggestions.

Besides the many insanitary conditions and influences inseparably connected with military life, there are some, that may be modified or even removed, to which I wish to call your attention.

In all the barracks at Cambridge, Readville, Worcester and Groton, the ventilation is very imperfect, but may be easily improved. Considering that in a few of these the men have but 205, but in most only 190 cubic feet of air (less than one third of the British regulation, 600, and less than two fifths the French allowance), it is important that means of renewing this air should be liberally provided.

All of these buildings have ridge ventilators opening on either slope of the roof. Most have two, a few have three of these, varying from two to three feet in length, and with outlets varying from five to eight inches in width. Generally they were of the narrower dimensions, and all insufficient to give the sleepers the quantity of fresh air needed for their health.

The French rule is, that if a man has 600 cubic feet of space in his sleeping-room, and commences his night with so much fresh air, this should be renewed twice an hour: that is, we should give a sleeper, so situated, 1200 cubic feet of fresh air every hour. The British rule is a little elastic, and allows 900 to 1200 feet an hour.

According to these rules, the barracks, with 100 lodgers, should have 90,000 to 120,000 feet of air pass out, and as much come in, every hour. These ventilators give from 4 to 5 feet of area of outlet; most have the smaller space, 4 feet. In order to carry off all the air needed for the 100 soldiers, there must, then, be a current of 4.5 to 5.7 miles an hour.

We must remember that here we have, in a still day or night, nothing but the specific levity of the air, warmed and expanded by the men's bodies, to produce any current upward, and the air that is pressed in to supply the place of that which goes out. But in a windy day, we have this additional force to press the air in, and force the warmer air out.

The difference of temperature amounting to 20° expands the air 1-25, or 4 per cent.; and a difference of 11° expands 2.5 per cent. In several British experiments, it was found that an average difference of 14° produced an upward current of 3.7 miles an hour, with the aid of a shaft.

In these barracks there is no shaft: consequently, the upward current, at the same temperature, would be less, perhaps much less, even 50 per cent. less, than in the British barracks.

In order, then, to meet the wants of the men, it will be necessary to increase the area of these ventilators.

I would therefore recommend, that these ridge ventilators be made like those proposed in the report of the Barrack Commission, to extend the whole length, or nearly the whole length, of the roof, and, moreover, that they have narrower outlets. Thus they will diffuse the fresh air more equally over the whole interior space.

Besides this, in order to prevent the chilling effect of very high winds, the ventilators should be supplied with valves, which would be easily regulated by cords, and make very little additional cost.

In this connection, it would be a valuable means of testing the power of the specific levity of air, in both tent and barrack, if thermometers could be put in the hands of the surgeons, to be put, at the same time, in and outside of the barracks and tents, and watched by the guard or officer having direction of the guards, to see the difference of temperature at different hours of occupancy; say at 12, 4, and just before the men rise.

This would show you and the government the difference of temperature created by the exhalation of animal heat, the degree of the expansion of air, and the force of the pressure outward, and probable rate of the outward current, from this specific levity.

This could be done with very little cost. One thermometer for the outside, and one for barracks and for each class of tents, would be sufficient, and the labor would be very readily done by the officer of the guard, under the superintendence of the surgeon. It could be done at two or more camps successively, with the same instruments. But it should be done in all the barracks and tents that have, in the same cubic space, different numbers of men, so that you may know the effect of the different ratios of persons or animal matter to the amount of enclosed air to be warmed.

This would show how far the depressing and vitiating effects of the confinement of men in 105 feet of air for each, as at Fort Warren; in 25 feet, as at Long Island and West Roxbury; in 28, 48, 58 and 62 in different tents at Worcester; in 42, 58 and 62 at Readville; and in 190 to 205 feet, as in the barracks, can be obviated by the natural means, and how much more needs to be done to sustain the men in full strength and in the best working order.

I would recommend that the barracks at Readville, lately occupied by the 44th regiment, be lime-washed before being again occupied.

The easternmost company of Col. Burrill's (42d) regiment is encamped on a place within a few feet of a pool of water, and within a few inches of the same level. The soil is porous, and must be penetrated and kept constantly wet with this water, and send its emanations into these rows of tents. This is one fact. Another and co-existent fact is, that there is more sickness in this than in any other company in the regiment.

Lest, then, this co-existence of facts may be cause and consequence, I would advise that this company be removed to some other part of the field.

At Groton, I found all the barracks banked up with earth, about ten to fifteen inches above the bottom of the sills.

I also saw a trap-door in the floor, and the waste, dirt and perhaps offal of the barrack in the space below. I saw one man lift a board and throw a piece of apple or other matter into the hole.

The privy, though perfectly pure, inasmuch as it is over the moving current of the river, is yet very uncomfortable, and even unsafe; certainly very bad for one suffering either from constipation or from colic, or the faintness of diarrhœa.

I saw the men examining the shoes just given out by the quartermaster, and some found the pegs projecting through the inner soles, which they were endeavoring to cut out with a knife.

In view of these conditions, although transcending my authority, which is to suggest to *you*, I did suggest to the Post Surgeon, Dr. Marolestes, to put a pole to rest upon at the privy, and also another to prevent the sitters from falling, in case the seat should break, as one did at another camp, and let whoever should be there into the river, as four men at the other place fell into the trench. As this accident has happened twice within my knowledge, and possibly more, it is better that all the privies be made more secure, and be also defended by the back as well as by the resting pole.

I also suggested to the Post Surgeon that he open the embankment at least to the extent of four feet on each side of the barracks, to let the air circulate through; but to defend these apertures with boards, to be used when the weather should be very cold, or the wind high.

I suggested, that he caused to be removed all the dirt, papers, offal, &c., that had been swept or thrown under the floors, and then to have the trap doors and loose boards nailed down.

Lastly, I suggested that, if he had a carpenter and means, and could obtain the consent of the proper authorities, he should extend the ventilators the whole length of the barracks, with narrower and valved apertures.

I would suggest to you, that, inasmuch as some of the shoes have uncut pegs, and more of them may have, and inasmuch as these cannot be worn without serious detriment to the facility of movement of the soldier, and there is a further danger of inflammation of the feet and at least partial suspension of efficiency, you cause a shoemaker's rasp to be put in the hands of each quartermaster, and that he find some shoemaker, in each regiment or company, to cut off the pegs and smooth the inner surface of such shoes as may need them.

There are other suggestions that I would like, and will take another opportunity to make to you, when I shall have examined the other camps at Wenham, Lakeville, and in the Western part of the State.

On looking over this, I find I have used the words *recommend* and *advise*, which exceeds the authority given me in your note, whereby I was only empowered to *suggest*. I pray you to pardon the error of language, and consider the words thus misused to mean only suggestions. These I make officially; yet personally I would earnestly both recommend and advise the improvements and alterations herein before described to be made.

I have the honor to be, Surgeon-General,

Very respectfully yours, EDWARD JARVIS.

Let me, in addition, ask your attention to the great and uncomfortable slope of the bunks in the Groton barracks. In these the men must be less refreshed, and therefore less fitted for service, than if they slept on a level. E. JARVIS.

WANT OF ASSISTANT SURGEONS IN THE ARMY.—We are informed that there is great need at present of good medical men for the position of assistant surgeons in the volunteer service, and are requested to call upon the profession through the State to urge competent medical men to present themselves for examination. The Board will meet next Friday, and every Friday through the month, for examination of candidates. Candidates must present evidence that they are regular graduates, of good moral character and strictly temperate habits.

THE following reply to our correspondent of last week will, we doubt not, be entirely satisfactory to him, as it certainly is to us.

MR. EDITOR,—I see that some of your correspondents are exercised about the name "Crysimum," one of the alleged ingredients in a nostrum by which Napoleon fancied he was cured of hoarseness. The name is doubtless a misprint for *Erysimum*, a weed of the mustard family, which I fear will not prevent future generals from getting hoarse in the exercise of their professional function.

Yours, &c. B.

OUR attention has been called to the following circular, issued by the Sanitary Commission:—

DIRECTORY OF THE HOSPITALS.—The Sanitary Commission have established an office of information in regard to patients in the hospitals of the District of Columbia and of Frederick City, Maryland. By a reference to books, which are corrected daily, an answer can, under ordinary circumstances, be given by return mail to the following questions:

1st. Is —— - —— [giving name and regiment] at present in the hospitals of the District or of Frederick City?

2d. If so, what is his proper address?

3d. What is the name of the Surgeon or Chaplain of the hospital?

4th. If not in hospital at present, has he recently been in hospital?

5th. If so, did he die in hospital, and at what date?

6th. If recently discharged from hospital, was he discharged from service?

7th. If not, what were his orders on leaving?

The Commission is prepared also to furnish more specific information as to the condition of any patient in the District hospitals, within twenty-four hours after a request to do so, from an officer of any of its corresponding societies.

The office of the Directory will be open daily from 8 o'clock, A.M. to 8 o'clock, P.M., and accessible in urgent cases at any hour of the night.

The number of patients in these hospitals is about 25,000. If found to be practicable, the duty here undertaken locally by the Commission will be extended to include all the general hospitals in the country.

Washington, D. C., Nov. 19, 1862. FRED. LAW OLMSTED,
General Secretary.

DRS. ABBOT and MINOT, MORLAND and AYER left Boston for their various places of destination, as hospital inspectors, a few days since. Drs. Abbot and Minot are in the vicinity of Fortress Monroe. Dr. Morland is in Washington. Drs. Coale, Buckingham and Gay leave this week to visit the hospitals in the West.

AT a late meeting of the Academy of Medicine, M. Bouvier read a paper upon various forms of canulæ and dilators which from time to time have been submitted for approbation by the Paris surgical instrument makers. M. Gosselin took the opportunity of calling the attention of his fellow academicians to the fact that the prolonged sojourn of these instruments within the tracheal tube is apt to occasion ulceration of its walls and tedious necrosis of the cartilaginous rings, and perhaps, also, in cases of croup, extension of the inflammatory action, assuming the diphtheritic form, towards the bronchi, terminating in asphyxia. M. Gosselin, therefore, maintains that the greatest amelioration possible in the operation of tracheotomy would be the suppression of the canula, and the substitution of a dilator which should not penetrate within the tracheal canal.—*Paris Corresp. of Lon. Lancet.*

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, NOVEMBER 29th, 1862.

DEATHS.

	Males.	*Females*	*Total.*
Deaths during the week, ...	30	31	61
Average Mortality of the corresponding weeks of the ten years, 1851–1861,	36.3	34.9	71.2
Average corrected to increased population, ...	..	..	76.97
Deaths of persons above 90, ...	1	0	1

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria
13	0	4	7	4	0	0	1	1

COMMUNICATIONS RECEIVED.—Case of Wound of the Femoral Artery.—Diary of a Brigade Surgeon attached to the Burnside Expedition.—A report of yellow fever cases at Port Royal, S. C., including the case of the lamented General Mitchell, is promised for the Journal, and will probably appear in the course of a few weeks.

MARRIED,—At Lexington, Nov. 27th, Dr. W. S. Miller, of Boston, to Carrie M., daughter of Joseph F. Simonds, Esq., of L.—At Montpelier, Vt., Nov. 25th, Charles H. Tenney, M.D., of South Hardwick, to Fannie W., daughter of Henry Nutt, Esq., of Montpelier.

DIED,—At Quincy, 23d ult., Dr. George L. Smalley, formerly Assistant Surgeon 4th R. I. Battery.—At Marblehead, Nov. 23d, Dr. Clark Blaisdell, aged 53 years 10 months 14 days.—On Friday, Nov. 14th, in discharge of his duties at Harwood Hospital, Washington, D. C., Dr. Francis R. Lyman, Acting Assistant Surgeon U.S.A., late of Sherburn, Chenango Co., N. Y., in the 25th year of his age. Dr. Lyman was a young man of much promise in his profession. He was a diligent student, a conscientious physician, and a steadfast friend.

DEATHS IN BOSTON for the week ending Saturday noon, November 29th, 61. Males, 30—Females, 31. Apoplexy, 1—consumption, 13—convulsions, 3—croup, 4—diarrhœa, 1—diphtheria, 1—dropsy, 1—dropsy of the brain, 4—drowned, 1—erysipelas, 1—scarlet fever, 7—typhoid fever, 1—disease of the heart, 1—homicide, 1—infantile disease, 1—intemperance, 2—disease of the kidneys, 1—congestion of the lungs, 1—hæmorrhage of the lungs, 1—inflammation of the lungs, 4—marasmus, 2—old age, 1—paralysis, 2—puerperal convulsions, 1—rheumatism, 1—sore throat, 1—suffocation, 1—unknown, 1.

Under 5 years of age, 21—between 5 and 20 years, 3—between 20 and 40 years, 14—between 40 and 60 years, 16—above 60 years, 7. Born in the United States, 35—Ireland, 22—other places, 4.

THE

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WOUND OF THE FEMORAL ARTERY—LIGATURE OF BOTH CARDIAC AND DISTAL SIDES OF INJURY—SECONDARY HÆMORRHAGE—LIGATURE OF EXTERNAL ILIAC—PERITONITIS—DEATH OF THE PATIENT.

[Communicated for the Boston Medical and Surgical Journal.]

Private R. B. Cornwell, of 25th Regiment Ohio Vols.; occupation, rake-maker: 23 years of age; dark complexion, brown hair, blue eyes. Enlisted 21st April, 1861, by Capt. J. P. McIlrath, at Cleveland, Ohio. He was wounded Sept. 14th, 1862, in the battle of South Mountain, Md., by a buck-shot, which entered the upper and front part of the right thigh. Lost much blood at the time of the injury—fainted several times. Hæmorrhage arrested by tying a handkerchief around the limb above the wound. He was conveyed in ambulance, the next day, to Middletown, a distance of four miles. Remained here three days, without surgical aid; the surgeon under whose care he was placed, saying he should not have left the field, the injury seemed so slight. On the 18th, rode in ambulance to Frederick City; there took the cars, and reached Washington on the 21st. Here he was placed in Capitol Hospital, at this time in charge of Dr. Shippen.

An examination gave evidence that the femoral artery had been wounded, and that a traumatic aneurism was forming. Water dressings were applied till the 29th, when, by the suggestion of Dr. Hall, a very eminent resident practitioner, who, together with J. F. May, M.D., a highly distinguished surgeon of this city, had been called in, compression, by means of the horse-shoe tourniquet, was made, and continued until the 4th of October. This was now discontinued in consequence of pain and want of the desired result, and nothing more was done till the 10th, on which day it was determined to tie the femoral artery, and the operation was accordingly performed by Drs. May and Shippen, assisted by Drs. Hall, Seeley and others. I should have mentioned that the external wound had entirely healed before making the compression.

The shot had entered some four inches below Poupart's ligament, over the track of the femoral artery.

The following account of the operation I have from Dr. May, who took an active part in it. Several medical gentlemen, I believe, were present.

An incision was made some four or five inches in length, commencing two inches below Poupart's ligament, and carried down in the course of the artery as is usual, through the skin and cellular substance. The several fascia were carefully divided—the sheath, enclosing the artery and vein, exposed and opened. The femoral artery was found to be wounded, and a tumor, or enlargement of the vessel at the point of injury, was observed, about the size of a "fox-grape." Blood would issue from a small opening in this tumor, and was readily controlled with the point of the finger. Dr. M. applied a ligature, first on the cardiac side—but this not restraining the hæmorrhage, which was profuse from the distal side, he tied the artery here also. After this, he divided the vessel between the two ligatures, and still the blood welled up from the bottom of the wound at this point, and the Doctor passed a curved needle, armed with a ligature, below and around the bleeding point, tied up the encircled tissues, and the hæmorrhage was stopped. Blood, arterial. One looker-on says, venous.

The wound was now brought together and secured by a few points of interrupted suture and adhesive straps, and light dressings of lint and bandage were applied. The foot and leg were enveloped in cotton, and their temperature maintained without difficulty.

All seemed to be doing well, when, on the sixth or seventh day, bleeding occurred, by which several ounces of blood were lost. It was soon arrested, however, and a tourniquet placed upon the limb; it was left loose, but in a manner to be readily tightened, in case of a return of the hæmorrhage.

The Capitol being used merely as a temporary hospital, it became necessary to remove the patients to other places; and as our hospital (the Casparis) was near, quite a number of the worst cases were brought here and put under my care, and among the rest, Mr. Cornwell, who was admitted on the 20th of October. From this time to the termination of the case, the patient was daily under my own eye, its progress and his condition being carefully observed.

The wound was filling up with granulations of healthy appearance, except at the centre, from which issued, rather freely, a dark bloody matter, strongly resembling dissolved coagula of blood mixed with a small quantity of pus. Pulse, on admission, 130; limb warm; tongue slightly coated; tolerable appetite; bowels in good condition. Drs. May and Shippen, taking much interest in the case, called almost daily for nearly a week, to see the patient, and seemed well pleased with the existing state of things.

On the thirteenth or fourteenth day after the operation, the proximal ligature came away of itself, with knot and loop on the end. This was preserved and shown to the medical gentlemen, when they called. The healing process was going on favorably, and Dr. May called four or five days after, and learning that nothing of an untoward nature had occurred, expressed his belief that the recurrence of hæmorrhage was by no means to be apprehended, especially at so late a period. But in this we were most sadly disappointed; for on the eighth or ninth day from the coming away of the ligature—on the 30th of October—secondary hæmorrhage again took place, and that profusely. Prompt attention was given, and, notwithstanding it was speedily controlled, such an amount of blood was lost as to greatly reduce the strength of the patient and hazard his life. I should judge that ℥ xvi. or ℥ xx. flowed out in a very few moments, for it jetted up in a stream near the size of one's little finger. I immediately despatched a note to our surgeon in charge, W. E. Waters, M.D., of U.S.A., informing him of what had happened, requesting his presence, and suggesting the civility of extending an invitation to Dr. May to accompany him. Dr. Waters, being ill at the time, could not come, but sent the line to Dr. May, who responded, though not till I was about to begin the operation of tying the femoral artery, as I had resolved on doing, just above the arteria profunda. I should have done this in a short time, had the Doctor not come in as he did.

A brief consultation was had. Dr. M. gave it as his decided opinion that the patient would inevitably die; but to prevent his more immediate death, from the loss of blood, advised ligating the external iliac. He thought there would be the same risk of hæmorrhage from the close proximity above, of the external pudic, epigastric and circumflexa ilii, as in tying the femoral in the first instance, one half or three fourths of an inch below the profunda, which he affirms he did. I could not coincide with him in this view of the case; but, inasmuch as he had already had so much to do with it, and had shared largely in the responsibility, I did not persist in maintaining the ground I had taken, and he, in the usual way, ligated the external iliac. And here I would remark, that, had the femoral artery been tied at the point I proposed (close to the profunda above), the great danger of peritoneal inflammation would have been avoided. And, moreover, it was far from being certain that hæmorrhage would have again taken place; the patient would have had, at least, one more chance of living; and in case this apprehended accident had followed, the iliac could then have been secured; and even had death ensued from exhaustion, as in truth was quite probable, I am well assured it would have occurred at a later period.

After the operation, the limb was carefully enveloped in cotton batting and flannel, and its natural temperature preserved. Having recovered from the more direct influence of the anæsthetic, stimulants were administered freely, and an opiate given at bed-time.

Oct. 31st.—Rested tolerably through the night; feels quite comfortable this morning. Pulse 130; more full than in the evening previous. Takes some food, and appears less exhausted. In the course of the day he began to complain of pain and soreness in the bowels. Fomentations were applied, and directed to be continued, and the following pill ordered to be given:—℞. Pulv. opii, gr. x.; hyd. chlor. mit., ℈i.; mucil. g. acaciæ, q. s. M. Fiat massa, et in pil. x. dividenda. Give one every two hours. Stimulants still given, but at longer intervals and in less quantity, as there was more reaction.

Nov. 1st.—Slept but little during the night. Suffers but little pain. Abdomen tympanitic, and very tender to the touch. Applied a large blister. Continue the pills of opium and calomel. Gave beef-tea, chicken-broth, &c. Pulse more frequent, 145 in a minute. Vomiting took place, and continued to recur at short intervals, in despite of various means employed to allay it. Cadaverous expression of countenance; dry tongue; urgent thirst; in short, all the symptoms more unfavorable and portentous, and pointing, unerringly, to a speedy fatal termination. Not the least hope in the case.

Nov. 2d.—Had a bad night; not much pain, but almost constant vomiting. Both medicines and food are ejected immediately after they are taken. Pulse 160; so small as scarcely to be felt at the wrist. Bowels more tympanitic, and still tender. Leg and foot of natural temperature; mind clear; desires death, as a relief from suffering.

Evening.—All the symptoms decidedly worse; can hardly live through the night.

Nov. 3d.—At 7, A.M., still living, but rapidly sinking. Died at 10, A.M.

Sectio Cadaveris, twenty-four hours after death.—Here I would premise, that Dr. May, to account for this unlooked-for and extraordinary secondary hæmorrhage, takes the ground that there must be an abnormal division of the femoral artery; and being fully impressed with the idea of the existence of two femorals, supposes that both had suffered injury, and one, as he confidently affirms, he tied, in the manner above mentioned, while the other, not being seen nor supposed to exist, continued open, and gave rise to the hæmorrhage and what followed. The external iliac having been injected downwards, and the popliteal upwards, that the examination might be made with greater ease, and that more satisfactory results might be obtained, the dissection was conducted as follows.

An incision, through the skin and cellular substance, was made over the track of the femoral artery, from Poupart's ligament down to the inner side of the knee; these were dissected up and turned back; the superficial fascia was divided, carefully raised and laid aside. The fascia lata was now divided on a director, and, with much care, dissected from the parts beneath; the sartorius muscle was raised and laid aside, and the sheath enclosing the crural vessels exposed. Poupart's ligament was cut through, and the incision extended into that made for the ligature of the iliac. Consequently, the cavity of the abdomen was opened; and here were found all the evidences of inflammation—effused serum, deposition of coagulated lymph, and the small vessels of the peritoneum highly injected. The external iliac, from its origin, and the femoral artery, were carefully separated from their surroundings, and traced down to one half or at most three fourths of an inch below the origin of the arteria profunda, where the femoral was lost in an aneurismal sac. The femoral vein was likewise traced, from where it passes under the crural arch, down to the sac, where it was lost sight of; its usual relations to the artery existed. Next, the popliteal and femoral artery and veins were, with great care, dissected out and traced up to within about five inches of Poupart's ligament, where they, in like manner, were lost in the lower margin of the aneurism, which, on being removed from its bed, was found to be about the size of a very large goose-egg, and something of the same shape. The most diligent search was instituted, all the several parts being dissected out with great care, and no second femoral artery could be found, and nothing discovered, in the division and distribution of the arteries of the thigh, of an abnormal character.

I am positively assured that no aneurism existed at the time of making the operation of ligating the femoral artery, except the small grape-like tumor above named; and therefore it must have formed since. It had burrowed deep among the muscles, approaching very near the femur, and, lying under the deep fascia, had not protruded much in front. This sac, together with the several vessels, were removed, and preserved for inspection.

REMARKS.—Professor May was present, witnessing and assisting in the examination, and having the most indubitable evidence to the contrary, gave up his idea of the existence of two femoral arteries; the case seemed inexplicable.

The facts connected with the several steps of the operation of tying the femoral, I have from no careless nor ordinary observer; but a scientific, experienced and practical surgeon, and one who occupies no unenviable position in the profession; hence his statements are entitled to respect, and his testimony worthy of credence.

But how are we to reconcile what is affirmed in respect of tying the wounded femoral artery, both on the cardiac and distal sides of the injury, the upper ligature having been applied three fourths of an inch below the origin of the profunda, and the distal one an inch and a half lower down, and the vessel divided between the two; and what was actually proved to exist by the *post-mortem* examination?

Whence came the blood to form so large an aneurism in so short a time? Could any small muscular branches which may have been given off between the ligatures, anastomosing with some others, have become so enlarged as to have afforded a sufficient amount of blood for this purpose?

In the performance of the operation, I do not see how any mistake could have been made. How can this matter be explained?

Casparis Hospital, Washington, D.C.,
Nov. 20th, 1862.

LEWIS HEARD,
Act. Assist. Surgeon U.S.A.

DIARY OF A BRIGADE SURGEON, ATTACHED TO THE BURNSIDE EXPEDITION.

By James Bryan, M.D.

[Continued from page 314.]

> "In peace, there's nothing so becomes a man
> As modest stillness and humility;
> But when the blast of war blows in our ears,
> Then imitate the action of the tiger."
>
> "It is too late; the life of all his blood
> Is touched corruptibly; and his pure brain
> (Which some suppose the soul's frail dwelling house)
> Doth by the idle comments that it makes,
> Foretell the ending of mortality."—Shakspeare.

March 15th (continued).—Amputated, this day, the left arm of Ferdinand Disbrow, of the 9th New Jersey, in the upper third of the humerus. This was a case of compound and comminuted fracture of the lower portion of this bone, caused by a Minié ball passing through the arm. The wound was received at the battle of Roanoke, and, consequently, this was a secondary amputation, which, as far as my experience goes, both on the Potomac and here, is often unfortunate in its results. The operation in this case was by double flap, which produced a very well-proportioned stump, without any puckering of the tissues. There was considerable trouble in arresting the hæmorrhage from the various muscular arterioles. The hæmorrhage still continued after the ligation of these vessels, proceeding, as we found, from the cavity of the bone. It was finally arrested by plugging the medullary canal with a piece of sponge, to which a thread had been tied. The latter was allowed to hang out of the wound. I observed, on sawing off the bone, that a considerable oozing of pus took place from the cavity of the bone; although the latter appeared healthy, and the point of amputation was at least two and a half inches above the fracture. Chloroform was used during the operation. *Query*—How soon after compound and comminuted fractures, does the internal periosteum take on suppurative inflammation; and what bounds this process? Second *query*—Are amputations generally successful when this inflammation has extended beyond the point of excision?

I was assisted in the above operation by Drs. Squiers, Humphreys, White, Cooper, Smith, and Cadet Applegate.

Sunday, 16th.—Received lists of sick and wounded in the hospitals under their charge, from Drs. H. and S.—Lieut. Brannan, of the 48th Penn. Vols., arrived to-day from Cape Hatteras, to obtain the body of Dr. Mennis. Dr. M. was formerly attached to the 48th; but on the death of Dr. Wheeler, of the 9th N. J., by drowning, at Cape Hatteras, he was detached to this regiment, and attended it in the battle of Roanoke. He fell a victim to over-exertion and anxiety, and died in fifteen hours after the battle, from sheer exhaustion. He was buried by his comrades, in the sandy beach of Roanoke, near Fort Huger. Lieut. B., after spending much time in digging graves in different parts of the Island, without success, was about to return as he came, when I told him that would never do, and proceeded at once to telegraph to the other end of the Island, inquiring if any one knew where the Doctor's body was interred. I soon received, in reply, that Dr. Bonsal was able and willing to point out the exact locality of the grave. The Lieutenant remains over till to-morrow.—Dr. Squiers reports that Disbrow is well, with the exception of slight bleeding, which was arrested by taking up a small artery.—Six patients from the 6th N. H. were brought to the Brigade Hospital to-day. Weather windy and cloudy. It will be remembered that there is little or no tide on this portion of the coast, and that, consequently, the rise of the water is due to the strong winds from the sea, opposing the streams of the rivers which flow into these sounds. The sounds are shallow extensions of water, almost like lakes, containing an abundance of fish and wild game. This fact gives profitable occupation to a considerable number of inhabitants, who either carry their products up the rivers to the cities of the interior, or, being more ambitious, carry on an extensive trade with the North. Oysters, clams, rock fish, shad, eels, white fish, wild ducks and geese, are among the products of this trade. These fishermen live in cabins and huts, on the marshes and islands of the sounds and the coasts. They are an unshaven, uncropped, drawling, slouchy kind of people, and to me appeared almost entirely ignorant of the causes and objects of the war. One of the most intelligent, however, informed me that be was a man of considerable property, living along the river some distance below Elizabeth City, N. C.; that he was a Union man, and that he had avoided the conscription of the rebels, in various ways, but particularly by keeping himself *scarce*. His daughter's husband, he said, possessed several relics, in the way of swords, sashes, &c., which the frightened Georgians had thrown away in their hasty skedaddle from Elizabeth City, when it was captured by our forces. Among the small trade of the Island, is the sale of wild duck and sweet-potato pies. The trader is usually a dark-skinned, long-haired, drawling fellow, with a diminutive donkey and a moderate-sized one-man go-cart. The taste of these *valuable* edibles will scarcely inform a Northern palate of their composition. The soldiers, however, crowd around the go-cart, laughing and joking and paying very dearly for these insipid dainties. Sometimes a boat comes in containing what the owner is pleased to denominate fresh beef—the remains of some animal evidently killed in his blood, which no consistent Jew would, and no good Christian ought to eat; but a soldier, who is not (by some) considered either, buys it eagerly, roasts it deliberately (on the point of his knife), and eats it with great gusto, emptying his pockets at the same time of "hard tack." Wild pigeons, doves, robins and *crows*, with an occasional hen-hawk, or eagle, are brought down by the sharpshooters of the command. The first three make very good stews and pies. The rest are apt to be too highly flavored to be palatable. There is, however, a very pretty spotted and black pig on the Island, which traverses the swamps like a native, fattening on the numerous snakes and frogs of the locality, whose especial enemy he appears to be. This animal, not having the countersign, is usually considered contraband by the troops; and after slight preparation, is generally esteemed a good roast pig.—Grapes grow on the Island in great abundance. The red plum grows wild plentifully. The celebrated palmetto, whose leaves are like sabres, with sharp points, waves in grace and beauty along the coast, reminding us of the rebellious State whence all our troubles spring.

Monday, 17*th*.—Received, from Quartermaster Nute, 265 pounds of fresh beef, at six and a half cents per pound, for the hospitals of the 3d brigade. This is a grand treat, which now comes much more frequently to the sick, than it did some time ago, when my friend Dr. S. went out to a secesh plantation, which had been deserted by the owner, and captured about a dozen fine beeves, breaking two of them to the yoke on their way to camp. This was fine fun for the Zouaves, who soon taught the young steers to draw a boat filled with corn, across bogs and swamps, to the vicinity of the hospitals, where some of them, skilled in the victualling trade, soon turned several of their steers into beef, which by a little further manipulation was changed into soup and beef-tea for the sick and wounded. The natives of the island, some six hundred in number, suffer very much for the want of medical advice and attendants; the physicians of the neighborhood having gone off with the rebel army. I prescribed to-day for a fine and handsome boy, by the name of Isaac Chauncy, who was suffering from dropsy (general). The tumefaction extending up to his thorax, he appeared to have organic disease of the kidneys. The surgeons of the command are also called upon, for medical advice, by residents of the main land.—Visited Camp Reno, and went through the hospitals in consultation with Dr. S.; found Disbrow doing tolerably well.—Two patients, sick with typhoid fever, died yesterday in this hospital, one of whom was in a state of decomposition when he entered, having emphysema of the neck and breast; his feet and legs, with his hands and arms, were purple and pulseless. He was a stout, florid young man, of about 20 years of age; touched by the transforming spear of typhus, he was changed at once into a decomposing corse.—Patients in all the brigade hospitals, with few exceptions, are convalescing rapidly. Fresh beef, cleanliness, including clean under clothing and sheets, from the Sanitary Commission, with careful nursing and judicious medication, are doing their work.—Lieut. Brannen just informs me that he has succeeded in finding the body of Surg. Mennis, which he has enclosed in a coffin, and will transmit at once to his friends in Pennsylvania.

Three cheers for Gen. Burnside! I have just heard from the lips of Capt. Warden, of the steamer "Stars and Stripes," an account of the victory of Gen. B. at Newbern, on the 13th instant. This was evidently a hard fought battle, and has added another to the inventions of the rebels during the war, viz., that of pouring turpentine on the river and on vessels, and setting it on fire in the track of our ships, in order to ignite them. Capt. W. says, however, that he sailed through this modern Greek fire without injury to his gunboat, and had an opportunity of sending some hissing shells and bursting bombs into the heart of that rebellious city. The fortifications for six or seven miles below the town, extending from the banks of the river several miles into the interior, and placed behind each other, as our forces approached the city were attacked, with a gallantry and courage which overcame all obstacles, and equal, perhaps, to anything which has yet occurred during the war. The fright of the citizens, when the town was shelled, he describes as terrific and pitiable.

Tuesday, 18th.—My contraband, Alexander H., has just been assigned to me by the government officers at stipulated wages. He is a fine, straight, black, gentlemanly fellow, about 28 years old, and although a "field hand" lately, was formerly a house servant, and understands the duties of a groom and waiter. He describes his race for liberty, together with half a dozen of his fellow servants, through woods and swamps, and water, in painfully graphic terms. At one time, he says, his master was within pistol shot of him in a boat, while he and his comrades were hidden in some bushes on an island. They worked themselves along, some eighty miles, to Roanoke Island, starting for this place soon after it had been taken by our forces. I asked him what he expected, in case he was returned to his master; he said, very seriously, nothing less than hanging or shooting. He is but one of many, who, hearing the glad tidings of liberty, as our victorious arms pass down the coast, rush to the starry standard, and beg for those rights which the immortal Jefferson announced as inalienable. They come singly in the night, in pairs in the day time, in squads and in bands. Shall we send them back to slavery, as some of their self-styled "*indulgent*" masters, who daily visit us for the purpose, desire? Our commander replies, I cannot use the government forces to rivet the chains of slavery. If you find your "chattels" among us, take them *if they are willing to go*; if not, I cannot help you.

Four more cases brought from the 6th N. H., to the hospitals of Camp Parke.—These barrack hospitals, by the by, are giving my patients rheumatism about as fast as they are cured of their fever. The chinks and cracks, between the boards in every direction, allow the searching winds of March to strike them in a way to produce local rheumatism, as fast as the retiring fever would permit the system to assume it. This kind of ventilation is, in my estimation, like "Paddy's fight in Donny-brook Fair," a little too general. The ventilation of a hospital should be, first, entirely under the control of the surgeon and his officers; secondly, the air should flow gently and regularly, all over the patient in one direction; thirdly, the temperature should also be under the control of the surgeon.

Wednesday, 19*th*.—The case of amputation of the arm (F. Disbrow) terminated in the death of the patient yesterday. The rapid prostration of the last twenty-four hours of his life, was possibly due to pyæmia. A similar case of fracture of the leg, in the same hospital, on which I refused to operate, died at the same time.—I have ordered drawings to be made of the various burial grounds of the Island, and am arranging them alphabetically, numbering the graves always from the north. These numbers and names of the dead are to be placed on the map, together with the regiment and company to which they belonged.—We continue to remove the patients from the regimental to the brigade hospitals, daily. Over one hundred of the convalescents are now strong enough to return to their regiments.—Received of Quartermaster Nute four barrels of onions, for hospital use. These are very much relished by the convalescents.—I traversed a good portion of the island (which is about 9 miles long, and 3 miles wide), in company with Dr. S., examining the battle grounds, burial grounds and forts. The ride through the woods and along the winding roads of the island, was both interesting and romantic. The remains of the old fort built by Sir Walter Raleigh, are distinctly visible, and are not far from the shore. It was built in the form of a star. The ivy, the creeping moss, used by the natives for mattrasses; the grape vine, the yellow jessamine, with various other vegetable parasites, arrayed the pine, live oak, and other large trees which grow on these ruins, with the graceful and venerable habiliments of antiquity. The locality and its associations threw my mind back to the days of Queen Bess and those of her great favorite Sir Walter. On this island, we are told, was born the first white child in America; and a celebrated Indian Chief, of this place, was the first American who received a title of nobility from the English government. Our government is building several new forts, on different parts of the island.

Thursday, 20*th*.—Surgeon Cooper reports one case of smallpox in the N. H. 6th, and we have five more at the upper end of the island. Some little alarm is felt, lest the disease should spread among the troops.—I delivered, to-day, to Drs. Humphreys and Squiers, a large quantity of Sanitary Commission stores, such as sheets, bed gowns, drawers, blankets, &c., for the use of their hospitals. These are very timely donations.

Friday, 21*st*.—I sent, to-day, to their respective regiments, all the convalescents from the hospitals on this island, who are fit for duty; also to Dr. Church, Medical Director of Burnside's Expedition, lists of the names of the men, and of the regiments to which they belong. The whole number sent, is one hundred and twenty-three. Their places here have been filled by patients from the several regiments of this command. This has resulted in evacuating almost entirely the regimental hospitals. The cases of typhoid fever are now very much diminished in number and severity, and the wounded are generally doing well.

(To be continued.)

ON THE CONSTRUCTION OF HOSPITALS.

[The following letter, on a most important subject, is from Mr. Charles Hawkins, of London, to the Editor of the *Lancet*. Mr. H. is a fellow of the Royal College of Surgeons, and has given much attention to the subject upon which he writes. The improvements in St. George's Hospital were made under his direction, and he also superintended the building of Queen Charlotte's Lying-in Hospital. He has likewise visited, within the last two years, some of the best constructed hospitals in France, Italy and Belgium.—Ed.]

Last year I was waited on by one of a deputation from abroad, who visited England for the purpose of informing themselves on all that we had done lately in hospital construction. When requested to point out the hospital in England that might serve as a model to be copied, I confess I was obliged to say that I knew of none. I trust the hospitals about to be built by the governors of St. Thomas's, and those in Leeds and Surrey, may be so constructed as to serve as models for all countries. The first question to be considered is, what is the best size and plan of a hospital? In my opinion, a hospital to contain 400, or at most 500 beds, is quite large enough for any one neighborhood, and for all clinical purposes, and will hold quite as many sick people as ought to be congregated in one building. As to the plan, of course this must depend in a great measure on the value of land; and as in this country, both in London and the provincial towns, the price of land is so enormous that it appears to me to shut out what is called the "*Pavilion*" plan, whatever its merits and demerits may be, and it has both, I think the best plan we can adopt is that of the letter H; the wards being only in the wings, and the centre of the building used for the officers' apartments and the other necessary rooms and offices, &c. The wings can be made long or short, according to the number of beds to be required. A plan of such a hospital—to contain 250 beds—I exhibited last year in the Architectural Exhibition. In this plan wards have windows on each side, which I consider a *sine quâ non*. The fire-place is placed in the centre of the ward, having two faces. In this plan the fire-place is so situated as to more equally distribute the heat, and to be seen by a larger number of patients; whilst a portion of the building through which the chimney goes serves as a ventilating shaft.

Not to take up your space, I will briefly state what, in my opinion, is requisite in constructing a hospital. In the first place, the wards should have windows on both sides; no entrance to wards through corridors that cannot be ventilated, or, what is worse, no *double wards*; all water-closets to be placed in a portion of the building projecting from the main building, so that they can have windows on both sides. Each ward to have attached to it a lavatory, with a constant supply of hot and cold water, where the patients who are able to get up may wash themselves; also a room fitted with *slate shelves*, where the provisions of the patients—such as bread, butter, and milk for the day—may be placed, and not, as now they usually are, on shelves over the bed; a room also to contain the clothes of the patients—not to be placed as they now are in boxes close to, or, what is worse, under the patients' beds. If there are nurses' rooms, large windows in them, so that they may have a view of the patients (and no green blinds allowed in these rooms, so as to do away with their use). Of course it is not requisite to mention the necessity of having hot and cold baths, lifts, &c.

In a hospital such as I have mentioned, there should be at least three large staircases: one in each wing for the *patients* (and if the wings are long, two may be required); and one in the centre of the building for the use of those in the hospital not patients. All these staircases should have an opening in the roof, filled in with perforated zinc, and covered for protection from rain by a raised zinc chimney or cowl. Such a plan has been adopted at St. George's Hospital with good results. The windows in the wards should be like those in use in the Middlesex and St. George's, opening by a very simple arrangement in three or four divisions, the quantity of open space being regulated according to the quantity of fresh air required.

As to the grand point, *ventilation*, I must confess that I have very little faith in what is called "scientific" ventilation, and I have seen a good deal of it. The ventilation of a hospital may be effected in a different mode to what may be required in large buildings containing a vast number of people, such as churches and theatres. I believe the ventilation of a hospital to be a very simple matter. Let the wards be built as I have advised; the windows kept almost constantly open, however small a portion of them; the staircases, halls and corridors large, and warmed when necessary with hot water; Dr. Arnott's ventilators in the chimneys; all water-closets being well shut from, although communicating with, the wards; all offensive dressings, &c., to be immediately removed from the wards.

Regarding the size of wards, I think they should not be too large nor too small; from 20 to 25 beds in each; from 1500 to 2000 cubic feet of space to each patient; wards not too lofty; windows reaching within nine inches of the ceiling; and at least six feet space between the beds. Wards thus constructed, and proper attention being paid by the attendants to the means of ventilation, will be kept as sweet and pure as rooms can be containing a number of sick people.

I cannot conclude these remarks without strongly expressing my decided opinion of the *absolute necessity* of every hospital containing convalescent wards. Such wards have lately been constructed in St. George's Hospital; but as they were made at my suggestion, and after my plans, I would rather quote what is thought of them by others. The following is from the Annual Report of the hospital, just published:—

"The two day wards at the top of the hospital, used as convalescent wards, have proved very beneficial: and the Weekly Board consider the following extract from a clinical lecture, delivered at the hospital by Mr. Prescott Hewett, one of the surgeons to the hospital, will be very acceptable and interesting:—'As for pyæmia, in hospital practice, that, I am happy to say, is less frequent in the wards of St. George's Hospital than it used to be; indeed, for the last two or three years, our wards have been remarkably free from this bane of surgery; and for this improvement there is no doubt that we are mainly indebted to our convalescent wards—the large, well aired rooms which have lately been built at the top of the hospital. These convalescent wards I consider to be of the utmost use, not only to the patients who are thus enabled in all weathers to get out of their own wards, but also to the patients who may still be obliged to remain in bed; the general wards are relieved of a certain number of patients during a great part of the day, and both sets of patients thus have a purer atmosphere to breathe.'"

There is also one other subject well worthy the consideration of governors of hospitals: the desirability of spending a little money in ornamentation of the *wards*. £40 or £50 will go a long way, in a large hospital, in giving to the wards an appearance of something like decorative art; and such a modest outlay will tend to enliven the spirits and hasten the cure of many a patient now doomed to have nothing on which to rest a restless eye but the eternal whitewash of most hospitals. A little shade of color introduced into the wash for the walls, with a party colored border, is all that is required, with a few well selected engravings.

To perfection in drainage it is hardly necessary to allude. The remarks I have ventured to bring before you are necessarily brief, and only touch on some of the most salient points in hospital construction. If I had more time, I would lay before the profession some extended observations.

Army Medical Intelligence.

To the Surgeon-General. DORCHESTER, MASS., DEC. 6th, 1862.

DEAR SIR,—Since I saw you last, I have visited and carefully inspected the camps at Readville, Dedham, and at Lakeville.

I was at Readville Saturday, the 29th ult. I found the regiment in the barracks, and, like the regiments which had been there before, comfortable and healthy.

There was still some, and had been considerable, of that light camp diarrhœa, which I have almost universally found in our State camps. At Worcester, Groton, Cambridge, Lynnfield, Boxford, Wenham, Readville, Long Island, West Roxbury, and Lakeville, I have found this disorder of the bowels in various degrees of prevalence and intensity among the troops. I have asked of the men in almost every company, whether they or any of their companions were so troubled, and have been answered in various forms of language in the affirmative. The men in different tents, barracks, companies, regiments and camps, say "Most everybody had it." "Three quarters had it." "Two thirds were troubled." "Scarcely any escaped." "Half of the men had it." Others say, "several," or "four or five that I know." "I did not, but the man that sleeps with me had it." "I don't know of any." "We had it at first, but not now." "It wasn't much:" or, "It was pretty severe for a time." I give you the evidence as I heard it.

This has been the same this, as it was last year, and in all places. I think the camp at Lakeville gave less evidence of this bowel complaint than any other.

In several of the camps, the soldiers—in some, the officers—and in one the surgeon, attributed this to some cathartic in the tea, coffee, or bread. At Boxford, two officers were very positive of the fact. They said, "they knew it—they knew the taste of senna and rhubarb, and they could not be deceived." I found it in vain to reason with them, or with any who held this faith. At Groton, the surgeon attributed it to the river water; and when they dug wells and drank therefrom, the diarrhœa ceased, or was very greatly diminished.

I would suggest to you, Surgeon-General, and to the government, whether it is not worth while to make a thorough examination as to this disorder so extensively spread among the new troops, and, if possible, ascertain whether it may or may not be due to some facts or conditions within the control of those who provide for, or have the management of the men.

I have found it in great variety of circumstance, condition, habit, place and exposure; on the island in the harbor, in the interior away from the sea, on the wet soil at Worcester, the dry soil at Boxford, the intermediate at Dedham: whether they drank the river water at Groton, the clear spring or deep well water at Boxford, the brook water or almost superficial spring water at Cambridge, the boggy spring water at Worcester, the pond water at Lynnfield, or the pool water at West Roxbury. I have found it among those who slept in tents and those who dwelt in barracks. I found it in cold and in warm weather, in spring with approaching summer, and in autumn and approaching winter. Men generally attributed it to change of diet—and the boiling of the food, boiled fresh meat, boiled salt meat, almost daily, is the only constant and universal fact that I have discovered. Can this be a cause?

I commend this, and a farther and minute investigation of this matter, to your careful consideration and good judgment, in the hope that you may trace it, or cause it to be traced, to something that may be removed.

At Readville, the battery were *in tents*, all floored. Around most of these tents were trenches dug, which, however, with only one, two, perhaps three exceptions, had no outlet. These trenches were mostly a few inches from the lower margin of the tent. The water, therefore, when it ran from the tent, had an even chance of running outward to find the trench, or inward under the tent floor. In either case, it had its power and opportunity to inflict injury. If it ran inward, it wet the surface of the ground and the soil under the soldiers. If it ran outward, it was caught in the trench and there retained, and, penetrating the surface on either side, it was absorbed into the soil beneath the tent and that in the vicinity, and both sent forth their noxious emanations to the injury of the sleepers.

I may here add, that I have found this ideal drainage, by a distant trench, varying from 0 to 36 inches from the edge of the cloth, to be very common. I found one, where the inner edge of the trench was 14 inches from the tent, and all the earth thrown on this intermediate space or border between ditch and eave, and with a slope towards the tent, so that by no possibility could the water reach the trench or escape from the necessity of running into and under the tent.

This matter of *drainage* is also worthy of the careful consideration of your department, and is therefore commended to your especial notice.

The tents at Readville, on the 29th ult., were arranged in rows, running north and south, and facing each other. One opened towards the east, and the other towards the west. Those facing eastward are thus exposed to the northeast storms which prevail from November to April, and cause the men to suffer more than if they faced southward. Those facing west are exposed to the northwest dry winds, which are severe and penetrating during the same season. I would, then, suggest, that if these men remain on that spot, the tents be all arranged to face southward; but I would first suggest, that these men be removed from the tents to barracks for the winter. Yet if they cannot be allowed to occupy barracks, I would propose that some other and less level field be found for their encampment—a place where the natural slope will carry off all the water, and allow the men to have as dry a habitation as they can under canvas.

On Thursday last, the 4th, I visited the camp at Lakeville, where were one regiment and six companies. Both of these corps I found in general good health, better than most others, with the exception of the mumps, which were diminishing, and had been severe in only two or three cases.

This field was dry, very dry, although the recent rains had been abundant. The soil is absorbent—sandy superficially and resting on porous gravel, for twenty or thirty feet, as I was informed. The wells were dug about fifteen to twenty feet, but the water was about eight feet below the surface of the ground.

The *barracks* mostly, as almost everywhere else in our camps, were banked up with earth, but generally only as high as the bottom of the sills, and few or none above the floors. If they are not banked above the sills, and small apertures are left, on either side, to allow some movement of air beneath, probably no harm would arise in the winter. The designed *ventilation* of these barracks is the most deficient of all the barracks I have seen. There are only two ventilators on the top of each, and these only about eighteen to twenty inches long, with outlets of five inches width on each side. These would be very far from sufficient if it were not for the undesigned ventilators through the crevices between the boards; for thus the error of the carpenter compensates, in great measure, for the error of the architect.

The *kitchens* are all in good order, but they should be lighted with glass. The man who prepares the food should be able to see and know the condition of the soldiers' nutriment, in the several processes of cookery. The cookery of the camp, with its rude apparatus, narrow range of material, and very imperfect skill, needs every aid that light can give. It is bad economy for the government, that wishes to create strength and have vigorous and effective soldiers, to make this preparation of nutrition in darkness, or in the cold blast that must come through an unglazed window in winter.

The *privies* were of the usual character—a hole and a pole. But one was filthy, and its neighborhood was filthy, and the appointed place was unapproachable, save by the fearless, and men were attending to their natural necessities in the open air and in the open field, in the sight of all men, and in sight of all women who happened to be in that vicinity on that level field. And the apparent composure with which the men were discharging this duty, when I was passing as near as I could safely, showed that compulsion and habit had disarmed them of the natural delicacy as to such matters, and changed the habits which they had cultivated before they came to the camp. I would suggest that more stringent efficiency be applied to this part of the camp police, certainly to this part of the Lakeville camp, and to some others. Respectfully submitted, EDWARD JARVIS.

LETTER FROM SURGEON S. K. TOWLE.

Surgeon-General Dale. CARROLLTON, LA., OCT. 18th, 1862.

DEAR SIR,—Dr. Davis arrived and reported for duty about two weeks ago, but was immediately detailed to attend the sick amongst the negroes attached to the Quartermaster's Department of the Brigade, and of one or two batteries of light artillery—hence I have seen but little of him. But so far as I have become acquainted with him, I am very much impressed in his favor, and feel confident that after he gets "the hang of the schoolhouse" he will make a good worker. My hospital remains in the same place as when I wrote to you last, and, I am sorry to say, is quite as well filled. The regiment for the last six weeks has been encamped in a wet, malarious locality, with bad water, and on either hand impassable swamps. As a result of this, the gratifying improvement from our Vicksburg condition, noticed at Baton Rouge and for a time after arriving here, has not only been checked, but we have retrograded, so that now we can turn out a line but little longer than at the time of the battle at Baton Rouge. This is by no means what I hoped for, and indeed expected, for I thought we had suffered about our share from unusual exposure to malaria. While we are having nearly as many sick as when up river in July and August, the average grade of the cases is much less severe and malignant. Intermittent fever appears in a much larger proportion of the cases, and a much less proportion of the remittent cases presents those tendencies to the congestive form of the disease, or condition of complete collapse, that gave us so much anxiety while up the river. Hepatic derangements are, however, met with more frequently, and are more persistent, manifesting a strong tendency to become chronic. From our long exposure to strong malarious influence producing repeated attacks of miasmatic disease in the same person, we are getting a very obstinate and lingering class of cases. Sallow, anæmic, emaciated, with swelling of the feet and legs, and perhaps general anasarca, great irritability of the stomach, general derangement of the secretions, especially that of the liver, deficient and capricious appetite, with the powers of digestion and assimilation so enfeebled that food seems to do but little good: a diarrhœa dependent on this depraved and disordered state of the secretions and the irritation or inflammation they produce, and thus almost inevitably getting chronic like its cause—add to all this the mental depression not only resulting from long illness two thousand miles from home, but also from a brain half nourished and half poisoned by malaria-vitiated blood, and we get cases that not only tax most severely our skill and patience, but that often, in spite of our utmost efforts, slowly sink before our eyes to death from exhaustion. With such patients I have succeeded best with a pill composed of quinine, rhubarb, ipecac and a little opium, together with muriated tincture of iron, and ale for a stimulant, which is often retained on the stomach much better than whiskey or brandy. In a few instances, turpentine or copaiba mixtures have worked well, but they are often rejected by the stomach. Continued gentle counter-irritation, without friction, often seems to aid in lessening the internal irritability, but rubbing with anything I think does more harm than good, by disturbing the already tender and inflamed viscera, and blisters seem to cause quite as much trouble as they cure. After all that can be done here, one is constantly reminded that the two great remedies for this class of cases are beyond his reach in a field hospital—viz., change of air and scene, and a nice attention to the details of diet. I have often thought that in military practice a surgeon is not so much wearied by what he does, as by what he cannot do but sees to be vitally important.

The 1st Louisiana Regiment, recruited in New Orleans, having been for a month or so encamped just beside our regiment in its present malarious locality, has given an opportunity for comparing the results of such exposure upon so called acclimated men and upon unacclimated Massachusetts Yankees. The result is that they get sick and die just as we do, and in quite as large proportion. In four weeks, from a regiment of new recruits just selected with great care, over three hundred were on the sick list, more than two hundred being in hospital, while the proportion of deaths to cases was no less than with us from the North.

A year ago, while serving as Assist. Surgeon of the 14th Regiment Mass. Vols., encamped from Long Bridge to Fort Albany on Arlington Heights, I had the opportunity of comparing the influence of the malaria of that locality upon the splendid men from Essex County composing that regiment, and upon two regiments from the West stationed just beside us, but in a more favorable locality. To my surprise, I found our men less affected than those from a land of malaria. Our cases were fewer in proportion to our numbers, and were less severe and obstinate, and certainly required much less heroic treatment than the others received.

Such having been the results of my experience and observation in different localities with men long accustomed to malarious influence, and the same results favorable to the powers of endurance of our soldiers obtaining at Vicksburg in comparison with negroes native or long resident in the locality, I find myself strongly tending to regard the idea of acclimation as a protection against malaria as considerable of a humbug. At any rate, until I see something better from other localities than I have yet, I would say, for anything, anywhere—in heat or cold, in swamp or fight, in bivouac or march—give me under my charge soldiers from the glorious old Bay State.

Yours, with sincere regard, S. K. Towle,
Surgeon 30th Reg't Mass. Vols.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, DECEMBER 11, 1862.

WE have received two circulars, recently issued by Dr. Letterman to the medical department of the army—one relating to the supplies to be furnished to the regiments, and the other to the treatment of the wounded during and after an engagement. The latter we publish below, our space not allowing, at present, the insertion of that containing the supply table. It will be seen that every care has been taken that the wounded receive the necessary attention, both by a thorough organization of division hospitals, and the assignment to each of the various medical officers in the field his special duties. No detail seems to have been omitted to ensure the utmost promptness and efficiency in this department of medical service, and we trust, in the future, to hear less of the abuses, which hitherto, in some instances, have certainly reflected little credit upon the government or the profession. We give the circular entire.

Previous to an engagement, there will be established in each corps a hospital for each division, the position of which will be selected by the Medical Director of the Corps.

The organization of the hospital will be as follows:—

1st. A Surgeon, in charge; one Assistant Surgeon, to provide food and shelter, &c.; one Assistant Surgeon, to keep the records.

2d. Three Medical Officers, to perform operations; three Medical Officers, as assistants to each of these officers.

3d. Additional Medical Officers, Hospital Stewards, and Nurses of the Division.

The Surgeon in charge will have general superintendence, and be responsible to the Surgeon-in-chief of the Division for the proper administration of the hospital. The Surgeon-in-chief of Division will detail one Assistant Surgeon, who will report to, and be under the immediate orders of, the Surgeon in charge, whose duties shall be to pitch the hospital tents and provide straw, fuel, water, blankets, &c.; and when houses are used, to put them in proper order for the reception of wounded. This Assistant Surgeon will, when the foregoing shall have been accomplished, at once organize a kitchen, using for this purpose the hospital mess chests, and the kettles, tins, &c., in the ambulances. The supplies of beef-stock and bread in the ambulances, and of arrowroot, tea, &c., in the hospital wagon, will enable him to prepare quickly a sufficient quantity of nourishing and palatable food. All the cooks, and such of the hospital stewards and nurses as may be necessary, will be placed under his orders for these purposes.

He will detail another Assistant Surgeon, whose duty it shall be to keep a complete record of every case brought to the hospital, giving the name, rank, company, and regiment; the seat and character of injury; the treatment; the operation, if any be performed, and the result; which will be transmitted to the Medical Director of the Corps, and by him sent to this office.

This officer will also see to the proper interment of those who die, and that the grave is marked with a head-board, with the name, rank, company and regiment legibly inscribed upon it.

He will make out two "tabular statements of wounded," which the Surgeon-in-chief of Division will transmit within thirty-six hours after a battle, one to this office (by a special messenger, if necessary), and the other to the Medical Director of the Corps to which the hospital belongs.

There will be selected from the Division, by the Surgeon-in-chief, under the direction of the Medical Director of the Corps, three medical officers, who will be the operating staff of the hospital, upon whom will rest the immediate responsibility of the performance of all important operations. In doubtful cases, they will consult together, and a majority of them shall decide upon the expediency and character of the operation. These officers will be selected from the Division without regard to rank, but *solely* on account of their known prudence, judgment and skill. The Surgeon-in-chief of the Division is enjoined to be especially careful in the selection of these officers, choosing only those who have distinguished themselves for surgical skill, sound judgment, and conscientious regard for the highest interests of the wounded.

There will be detailed three Medical Officers to act as assistants to each one of these officers, who will report to him and act entirely under his direction. It is suggested that one of these assistants be selected to administer the anæsthetic. Each operating surgeon will be provided with an excellent table from the hospital wagon, and, with the present organization for field hospitals, it is hoped that the confusion and the delay in performing the necessary operations so often existing after a battle will be avoided, and all operations hereafter be primary.

The remaining Medical Officers of the Division, except one to each regiment, will be ordered to the hospitals to act as dressers and assistants generally. Those who follow the regiments to the field will establish themselves, each one at a temporary depot, at such a distance or situation in the rear of his regiment as will insure safety to the wounded, where they will give such aid as is immediately required; and they are here reminded that, while no personal consideration should interfere with their duty to the wounded, the grave responsibilities resting upon them render any unnecessary exposure improper.

The Surgeon-in-chief of the Division will exercise general supervision, under the Medical Director of the Corps, over the medical affairs in his Division. He will see that the officers are faithful in the performance of their duties in the hospital and upon the field, and that, by the ambulance corps, which has heretofore been so efficient, the wounded are removed from the field carefully and with despatch.

Whenever his duties permit, he will give his professional services at the hospital—will order to the hospital as soon as located all the hospital wagons of the brigades, the hospital tents and furniture, and all the hospital stewards and nurses. He will notify the captain commanding the ambulance corps, or, if this be impracticable, the first lieutenant commanding the division ambulances, of the location of the hospital.

No medical officer will leave the position to which he shall have been assigned without permission, and any officer so doing will be reported to the Medical Director of the Corps, who will report the facts to this office.

The Medical Directors of Corps will apply to their commanders on the eve of a battle for the necessary guard and men for fatigue duty. This guard will be particularly careful that no stragglers be allowed about the hospital, using the food and comforts prepared for the wounded.

No wounded will be sent away from any of these hospitals without authority from this office.

Previous to an engagement, a detail will be made by Medical Directors of Corps of a proper number of medical officers, who will, should a retreat be found necessary, remain and take care of the wounded. This detail medical directors will request the corps commanders to announce in orders.

The skilful attention shown by the medical officers of this army to the wounded upon the battle-fields of South Mountain, Crampton's Gap and the Antietam, under trying circumstances, gives the assurance that, with this organization, the Medical Staff of the Army of the Potomac can with confidence be relied upon under all emergencies, to take charge of the wounded entrusted to its care.

Very respectfully, your obedient servant,
JONA. LETTERMAN, *Medical Director.*

The late Charles T. Carney, a leading pharmaceutist and chemist of this city, whose lamented death was announced in the papers some weeks since, was well known to most of the physicians of Boston, who appreciated his worth while living, and joined in the general sorrow at his death. At a meeting of the Trustees of the Massachusetts College of Pharmacy, on the 1st of October, the President and Corresponding Secretary were appointed a Committee to communicate to the widow of the deceased the deep and heartfelt sympathy felt by the members for the great loss she had sustained. In performing this duty, the Committee say truly of their departed friend—"Standing, as he did, at the head of our profession—having qualified himself by a life of severe self-devotion to study and research—possessing extraordinary ability as an instructor, he has left a vacancy which cannot be filled. He was the centre of our circle, beloved and respected by all, and his worth will remain the richest treasure of our memory."

66 Fifth Avenue, New York, Dec. 5th, 1862.

Mr. Editor,—Letters just received from Boston notify me that an accomplished swindler, representing himself as my son, has called on several of the prominent medical gentlemen of that city, and obtained, under his base subterfuge, various sums of money. In one instance, I am informed, he asked for $20, but was requested to accept $40, which he did without compunction. About six months since, an individual of gentlemanly bearing, assuming to be the son of a distinguished professor of Boston, did me the honor of a visit—said he had just arrived from Washington on his way home, was robbed of his purse, and was without the means to take him to Boston. Without hesitation, I gave him the necessary aid, from which no doubt he took comfort. I believe, from what I can learn, that this is the same "son," who claims a double paternal ancestry.

May I request that you will give this note an insertion in your Journal, in order that our brethren may be on their guard.

Truly yours, Gunning S. Bedford, M.D.

Publisher's Notice.—Many of our subscribers will find enclosed in their copies of the Journal, during this month, bills of their indebtedness, to the close of the current year in February next. Before the commencement of the next volume, notice will be given in regard to the coming year. Most periodical publishers have found it necessary, on account of the greatly increased expenses of publication, to increase their subscription price or diminish the size of their works. This can be avoided in the case of the Journal, for another year, by the payment of the many small sums due as arrearages from individuals in different parts of the country, and the continued patronage of present subscribers. Systematic efforts have lately been made to obtain a settlement of each account of long standing, and prompt and gratifying responses have been received from many subscribers; others are reminded of the importance of giving their earliest attention to it. Receipts for money which comes by mail will be enclosed in the succeeding number of the Journal, and any subscriber not thus getting his receipt is requested to notify the publisher at once.

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, December 6th, 1862.

DEATHS.

	Males.	*Females*	*Total*
Deaths during the week, ...	50	31	81
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	37.5	33.4	70.9
Average corrected to increased population, ...	..	..	76.64
Deaths of persons above 90, ...	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria
20	1	6	6	6	0	0	1	2

Books and Pamphlets Received.—The Institutes of Medicine, by Martyn Paine, M.D., New York—7th Edition.—The Twenty-sixth Annual Report of the Vermont Asylum for the Insane.

Married,—In Cincinnati, Nov. 11th, John A. Murphy, M.D., one of the Editors of the Cincinnati Lancet and Observer, to Miss Caroline Menzies, daughter of Dr. S. G. Menzies.

Died,—On the Jamestown road, near Washington, F. A. Hunt (late of West Boylston), Assistant Surgeon in the 27th Regiment Mass. Vols., shot by guerillas.

Deaths in Boston for the week ending Saturday noon, December 6th, 81. Males, 50—Females, 31. Accident, 3—anæmia, 1—apoplexy, 1—inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 1—bronchitis, 3—cancer of the breast, 1—cholera infantum, 1—cholera morbus, 1—consumption, 20—convulsions 3—croup, 6—diarrhœa, 1—diphtheria, 2—dropsy, 2—dropsy of the brain, 4—scarlet fever, 6—typhoid fever, 1—disease of the heart, 3—infantile disease, 3—disease of the kidneys, 1—disease of the liver, 1—congestion of the lungs, 1—disease of the lungs, 1—inflammation of the lungs, 6—premature birth, 2—puerperal disease, 1—scrofula, 1—suicide, 1—unknown, 1.

Under 5 years of age, 32—between 5 and 20 years, 10—between 20 and 40 years, 21—between 40 and 60 years, 11—above 60 years, 7. Born in the United States, 54—Ireland, 17—other places, 10.

THE

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STRANGULATED INGUINAL HERNIA.

[Communicated for the Boston Medical and Surgical Journal.]

Mr. Editor.—The following operation for strangulated direct inguinal hernia, interesting by reason of the tightness of the stricture, its obstinate resistance to all means and appliances of a medical nature, and the rapid and entire recovery of the patient, is cheerfully submitted to your Journal for record.

The patient, A. M., of this town, aged about 30, of nervous temperament and scrofulous diathesis, with a spinal curvature, was "breached" on the right side several years since, as he says, by heavy lifting. Has worn a truss constantly, nights excepted. Small protrusions have occurred many times, which he has readily reduced without professional aid. On the night of Sept. 26th last, at the cry of fire, patient rose from his bed and hastened away, forgetting to apply his truss. While running rapidly to the scene of conflagration, the hernial sac protruded, and remained so three or four hours; during which time he was actively and laboriously engaged, till the severity of abdominal pain necessitated a hasty retreat bedward, where I found him in intense agony. Hot appliances, local and general, were immediately tried, to aid in the taxis, but without any perceptible impression. Ice was suggested, but could not be obtained without considerable delay. Sulphuric ether was then administered, and *perfect anæsthesia maintained for nearly three hours*, with occasional attempts at reduction; the patient being kept some of the time on an inclined plane, with the head downward. This also failed. No diminution whatever was effected in the size of the tumor. The opening into the inguinal canal, which could at times be felt by the point of the finger, was exceedingly small. The tumor was of the usual shape, and of the size of a large orange.

The customary operation was now determined on, and performed by myself as rapidly as possible, the patient being still under ether. The intestine was found of a dark livid color, but nowhere sphacelated; distended with air and some fæcal matter. No ligatures were necessary. The wound was approximated by the interrupted suture; and a dressing of water with a graduated compress applied, retained by a spica bandage. As soon as consciousness returned, the patient was given pulv. opii gr. i. in pill; which was repeated every three hours for four days. The diet prescribed was one half a teacupful of cream three times daily, gradually increased, for one week, when the patient began to resume his ordinary diet. The wound healed mostly by first intention.

Two weeks from the time of operation, patient left his bed, and walked quite readily about the house; and in a few days more entered upon his customary business. There has been no swelling or protuberance since the operation, and the truss is only worn while walking.

I am thoroughly convinced, by long and repeated trials in the reduction of hernia, that the ring of tissue forming the constriction is not susceptible of dilatation or relaxation, by means purely medical; and that all measures, in order to be successful, should have reference to lessening the size of the tumor—and to this end, I consider *cold* very effectual.

A short time after this operation, I had the good fortune to perform another of the same kind, on that almost constant attendant of the medical man in active practice—the horse. This operation was very successful, and the breach apparently cured; the patient now being able to do good service on the road. No ether was used in this case, owing to the fact that I had not a sufficient quantity on hand; which I very much regret, as this was a good opportunity to test the power of that favorite anæsthetic.

Respectfully yours, George G. Tucker, M.D.

Westfield, Mass., Dec. 8th, 1862.

ANGINA PECTORIS.

[A paper read before the Royal Medical Society of Edinburgh, Scotland, on the 28th of March, 1861, by Francis Wayland Campbell, M.D. (McGill College), L.R.C.P., London, &c. &c.]

Mr. President and Gentlemen,—In attempting, this evening, to draw your attention for a few moments to a disease of such great importance as "Angina Pectoris," I do so more in the hope that on the conclusion of my remarks, the members of this Society will freely state what has been their experience, than of adducing anything particularly new or startling concerning an affection the pathology of which is still disputed by the most eminent authorities of the day. Fortunately for the human family, this disease is of comparatively rare occurrence—yet, it was my good fortune that the first case of importance that I was called to attend, after my graduation, was a genuine case of "angina pectoris." As it will form the subject of a portion of the following remarks, I will now proceed to detail it.

On the 4th of July, 1860, I was sent for in great haste to visit James S., a colorer and whitewasher, aged 54, who, I was informed, shortly after taking a hearty dinner, was seized with a violent pain in the region of the stomach. When I arrived at his dwelling, I found the pain had entirely disappeared, and he was comparatively well. His bowels being torpid, I ordered ten grains of blue pill to be taken at bed-time, and a seidlitz powder in the morning; and left instructions, should the pain trouble him again, to apply a sinapism over the affected region. On the following day, I again visited him, and was informed that twice during the night he had had a paroxysm of pain, which the sinapisms failed to relieve. Having made minute inquiries into the man's habits, I found that he indulged rather freely in liquor; this, with the fact that the two attacks he suffered from during the night were accompanied by a desire to vomit, led me to order a blister over the epigastrium. On the 6th, he said he was rather better, the blister having lessened the intensity and frequency of the paroxysms.

On the 7th, he was, to use his own expression, "much worse," having had this morning two severe paroxysms. This time he referred the seat of pain to the region of the heart, and described it as agony the most intense, rendering him almost unable to breathe. It came on suddenly, shooting to the back of the neck, then down both arms, lasting about twenty minutes, and gradually passing off. Clearly now I had a case of "angina pectoris." On examining the cardiac region, I detected, on close attention, a faint and almost imperceptible murmur with the first sound of the heart. I prescribed gr. xv. of Dover's powder every four hours, and a tablespoonful of the following mixture every two hours: ℞. Spts. eth. sulph. comp., spts. ammon. arom., aa ℥ ss.; tinct. hyoscyam., ʒ iij.; aquæ ad ℥ vi. On the morning of the 8th, he walked to my surgery, and asked me to repeat the powders, as they had done him a great amount of good. Had, the previous night, only one paroxysm, which was mild in character compared to those which preceded. On the 9th of July, I visited him about noon: he felt himself improving, and was in much better spirits; wished to go out to attend to some business, which I forbade. Same medicines continued. About half past 7 o'clock, contrary to instructions, he attempted to cross the street to a neighbor's house, when he was seized with a severer paroxysm than any of the preceding, so much so, that he was unable to return home without assistance. As he was thought to be dying, I was sent for in great haste. I found him trembling violently, and his body covered with cold perspiration; the pulse was small and frequent, and the countenance exhibited extreme anxiety. A little brandy was ordered, otherwise to continue as before. About 9 o'clock I saw him with Dr. Craik, in consultation, when matters were found much as reported on the 7th. While we were in the room, a paroxysm came on, and, on placing the stethoscope over the heart, a loud systolic murmur was heard—also a very distinct and harsh diastolic bruit; both these sounds were heard over the aortic valves, but were inaudible at the apex. All previous medicines were stopped, and the following ordered: ℞. Tinct. valerian. ammon., ʒ vi.; spts. eth. sulph. comp., ℥ ss.; tinct. opii, ʒ ij.; aquæ ad ℥ vi. Take ℥ ss. every three hours. It was determined to try the hypodermic injection, should we again find him in a paroxysm. On the 10th, he felt easier, and a few moments before I arrived on the 11th, he was attacked with a paroxysm, which was on when I entered. The physical signs were precisely as noted on the 9th. I injected seven drops of Tilden's fluid extract of belladonna, and twenty drops of liquor opii sedativus (Battley's) hypodermically, which failed to give any relief or affect him in the slightest, and the paroxysm passed off as previously.

12th July.—Dr. Craik met me in consultation to-day. Has had several severe attacks since last visit. We felt inclined again to try the effect of the hypodermic injection. but he positively refused to submit; he begged to be cupped, which I accordingly did, and obtained about six ounces of blood. 13th July.—Has found more relief from the cupping than from anything else. Asked to have it repeated, which was accordingly done. On the following day he felt himself so much better that it was with difficulty that he could be persuaded to remain at home. 15th July.—On making my visit today, I found that in the morning he had had a slight attack, which he attributed to some exertion he had made. Visited him at 8, P.M.; felt quite well, was sitting chatting with some friends. No paroxysm since the morning. 16th July.—About three o'clock this morning, he suddenly awoke his wife, saying he had another attack. He then called for his medicine. She got up, lit a candle, despatched a messenger for me, and brought the bottle to him. He raised his head to take some of it, when he suddenly placed his hand over his heart, his head fell back, and without a struggle he died.

A *post-mortem* examination was made about 13 hours after death. The countenance was tranquil, and the cadaveric rigidity extreme. The heart was considerably enlarged and fatty. On the surface were two milky patches, about an inch in diameter, and each of the cavities contained a small quantity of blood. The mitral and tricuspid valves were healthy. On the free surface of the aortic valves, ossific matter was deposited, as well as upon the whole surface of the arch, rendering the parts rough and gritty to the finger. At the aorta, between two of the valves, was a triangular spot, about three eighths of an inch in diameter, which projected to the extent of one tenth of an inch into the calibre of the artery, and no doubt contributed to cause the murmur which had been diagnosticated before death. No other lesion of the heart was discovered, and all the other organs were healthy, with the exception of the liver, which, as might have been anticipated, by the man's habits, was considerably enlarged.

This, gentlemen, terminates the history of a case which, to me, was full of interest. Doubtless it is not as fully reported as one more experienced would have done, still I hope that, in some points at least, it is instructive. As a general rule, "angina pectoris" does not terminate fatally so rapidly, as in the case just detailed, for Stokes records a case where the patient suffered for ten years from aggravated symptoms of this disease. Indeed, so far as time and the means at my command allowed, I have been able to find but one recorded case which proved fatal in a shorter period, which is given by Latham, and was that of Dr. Arnold, the head master of the School at Rugby. Others may have occurred—may be reported—but they can be but few, for Dr. Begbie of this city, Professor of Practice of Medicine in the College of Surgeons, whose means of inquiring are of course great, a few weeks ago, while lecturing on "angina pectoris," was pleased to quote my case, as an example of an extremely rapid termination of the disease. Previous to my being called to attend this man, he had enjoyed remarkably good health, for a period of twenty years not having a bodily ache of any kind. The quick succession of attacks which he suffered from, was another peculiarity in the case, while no exciting cause could possibly be ascertained. In almost all the cases which I have read, weeks and months as a rule intervened between the paroxysms; while my patient had three and four in one day, the fatal termination ensuing upon the twelfth day from the first attack. It is deeply to be regretted that concerning a disease so interesting as the one under consideration, of late years but little has been done towards its investigation. In such works as Walshe, Stokes, and Latham, we find that a few pages contain all these justly celebrated authors have to say on the subject. It is, I say, to be regretted; for of late years the microscope has thrown such a vast amount of light upon hitherto obscure affections, that I cannot resist the temptation of believing that if those who from their extensive field of observation are likely to have cases of "angina pectoris" come under their notice, would patiently investigate the subject with the aid of that valuable instrument, the darkness and uncertainty which now surrounds it would soon pass away. As it is now, we have to go back to the year 1799, since which time but little advance has been made in our knowledge of this disease. In that year, Dr. Parry, a member of this Society, published a work entitled "An inquiry into the Symptoms and Causes of Syncope Anginosa," and to this day it is unquestionably the best monograph that we possess on the subject, and the theory then advanced by him I will presently attempt to show is the one most supported by pathological observation. One fact concerning the disease we may, however, take as established, and that is, true "angina" never occurs without organic disease of the heart or arteries in its vicinity. It is true, cases are recorded in which no traces of organic disease were observed. Concerning such cases Dr. Stokes (and I must believe he is correct) says: "It is more probable that in the cases so described, the disease was overlooked, than that the heart was perfectly sound." He then goes on to say, "that such cases as were observed before the application of the microscope to pathological anatomy, may be set aside as proving the existence of 'angina' without organic change; for among the most important uses of histological research, is the discovery of those early stages of organic change which escape the unassisted eye." Dr. Walshe on the same subject says, "It has occurred to me to examine during life some six or eight cases of true 'angina'; in every one there were signs of organic disease. I have opened or seen opened the bodies of three persons destroyed in the paroxysms; the heart was texturally affected in all." The forms of organic disease present, as enumerated by Latham, are as follows:—1st, weakness and attenuation; 2d, weakness with fatty degeneration; 3d, some form of valvular disease, generally affecting the left side; 4th, disease of the aorta, with or without obstruction of the coronary arteries. If we analyze closely the various cases which have been recorded, it will be found that in the great majority of instances, the organic disease present was weakness with attenuation of the walls of the heart, or weakness with fatty degeneration, the coronary arteries as a rule being ossified (and as in the case detailed, the ossification extending frequently to the aorta and valves), and if not truly in an ossified condition, at least a cartilaginous formation being found in their interior. If the coronary arteries are found in the condition I have just named, it need not, I think, excite our amazement, if we find the heart itself in a weakened condition; for just in proportion as these arteries vary from their normal state will the nutrition of the heart be impaired. If the calibre of the artery is in the slightest degree diminished, the required amount of blood will not reach the great arterial centre, the result being a weakening of the muscular fibres. I believe, then, that as a general rule, in all true cases of "angina pectoris," the coronary arteries will be found diseased. Having made this strong assertion, it may surprise the members of this Society somewhat, that in the case which came under my care not one word about the coronary arteries appears in the *post-mortem* examination. You cannot regret it more than I do, but it could not be avoided. It was with great difficulty that I succeeded in getting the friends to consent to such an examination, and before it was completed to our satisfaction, the friends entered and would not allow us to proceed further. Unfortunately the examination of the coronary arteries had been postponed till the last, but from hurriedly passing my finger over them, I can with certainty say, they felt as if ossified, and in my own mind I have no doubt but they were.

It will be remembered that the heart of this man was enlarged and fatty. The hypertrophy can easily be accounted for from the man's occupation, which was of such a character as to constantly keep the heart in an excited condition. It is very probable that he may have suffered, unknowingly, from this disease for many years; the fatty condition, judging from its extent, being of comparatively recent date. My opinion is, that had the man lived a few years longer, the hypertrophy would have in a great measure disappeared; while the muscular fibres of the heart to the naked eye—but more so under the field of the microscope—would have presented, in a very marked degree, the characteristic signs of weakness, the fatty transformation in the mean time gradually increasing. I have previously mentioned a case, recorded by Stokes, of a patient suffering ten years from "angina pectoris," and here the *post mortem* revealed vast hypertrophy, which was believed to have been secondary to an attack of "endo-pericarditis." I regret that in this case not a word is said regarding the condition of the coronary arteries; still, however, I am forced to believe they must have been in an abnormal condition, sufficient to interfere with the proper nutrition of the heart, for I find that digitalis—a most valuable remedy in the treatment of hypertrophy—was sure to aggravate his distress; saline purgatives did the same. Now surely, if the hypertrophied heart was in this case, as is the rule, receiving an amount of blood equal to the increased duty which it was called upon to perform, digitalis would have been the remedy above all others selected to benefit the patient. On the contrary, he always received the greatest possible benefit from the employment of stimulants, as a rule contra-indicated in hypertrophy, his allowance being for many years eighteen tumblers of punch daily. The effect of these two directly opposite modes of treatment goes strongly, I think, to prove that the muscular fibres of the heart were in an excessively weakened condition. Hypertrophy in "angina pectoris" seems to be extremely rare. In addition to my own case, the only other I have been able to lay my hands upon (having used your magnificent library) is the one I have quoted from Dr. Stokes, and if we will not admit that the fibres are degenerated, it will be somewhat of a difficult task to account for the sudden death of Dr. Stokes's patient, which he himself says was by syncope. Before taking leave of this case, I may as well mention that none of the salts of morphia, or even the black drop, except in *very large* doses, produced the desired effect.

Having thus touched upon a few of the leading facts connected with this disease, we will now pass on to consider the real and important question at issue, what is "angina pectoris"? I have mentioned the different varieties of organic lesion which are found in and around the heart; but as all these changes exist and prove fatal without any symptoms of "angina," "the conclusion is unavoidable," says Walshe, "that there is something beyond organic mischief concerned in generating the paroxysm." What that is, I will now try to show. I may fail; if I do so, I fail in a good cause. Walshe, with Latham and others, allies it to the nervous group, stating it to be spasm of the heart; while Stokes, with Parry, who is still the great authority on this disease, considers the pathological condition during the paroxysm to be a diminution of the muscular power of the heart; and, from what I have already stated, you know that this is the theory, which, to my mind, seems to be most strongly supported by facts. First, however, we will see what arguments the supporters of the spasmodic theory have to adduce. Walshe says that its spasmodic character appears from its sudden advent and departure; from the character and intensity of the suffering; from the perfect ease enjoyed in the interval of seizure: and from the kind of treatment that proves beneficial. Latham urges more strongly than the preceding authority its spasmodic character. He refers the pain, and the dying sensation felt by the patient, to spasm. Certainly these arguments appear strong, but, if we have recourse to facts, we find the theory advanced by Parry, and more recently endorsed by Stokes—that the attack depends upon a weakened condition of the heart, the blood arriving at that organ faster than it is able to propel it onward—is the one most supported by them. Thus females, notoriously more liable to diseases of a spasmodic character than males, enjoy almost a complete immunity from it; indeed, I consider it very doubtful if the few cases that are mentioned as occurring in women were genuine attacks of angina pectoris. It nearly always occurs in men above the age of fifty (a period of life peculiarly prone to ossification of the arteries) and of a leuco-phlegmatic habit of body, and there is not the slightest evidence to show that after a fatal paroxysm of angina, the heart has been found in a spasmodically contracted condition, although this condition has been found after death from other causes, such as tetanus or decapitation. In my own case, although the muscular system generally was in a state of extreme rigidity, the heart, so far from being spasmodically contracted, was more flaccid than usual, and contained blood in all its cavities. The walls of the organ were attenuated, and in a state of fatty degeneration, two conditions not at all favorable to spasm, but eminently so to failure of muscular power. If angina was due to spasm, should we not expect to find, and *should we not* find the heart firmly contracted? Again, if it was spasm, would not the circulation be interrupted, in fact totally stopped, which we certainly know is not the case. On the contrary, we find that the pulse becomes weak the moment the paroxysm sets in, and increases in weakness just in proportion to the duration of the attack. Dr. Parry, in his admirable work, mentions the case of a patient who was under his care for a lengthened period, who permitted the Doctor to accompany him during a walk up hill, in order that he might witness what occurred during a paroxysm of angina. Dr. Parry says, "when the fit was thus excited, I could perceive no symptoms of disorder in addition to the uneasiness at the breast, except a *gradual* and most *evident diminution* of the strength of the pulse, and I have no doubt that we shall invariably find the pulse become weaker in proportion to the intensity of the paroxysm." Dr. Wall also mentions a case where the pulse was never *irregular*, but *always small*, gradually sinking as the paroxysm increased. Can we account for this state of things on the theory of spasm?

I think not; yet it seems to me no difficult matter to account for them if we only admit the weakened condition of the muscular fibres of the heart. The cold perspiration, which is so frequently seen in a paroxysm of any duration, is easily explained by the gradual failure of the circulation, and the intense anxiety of mind under which the patient labors. Many patients complain that, when in the paroxysm, they have the terrible feeling that to take a full inspiration would cause instantaneous death, yet that it is only a feeling is proved by a case mentioned by Parry. A gentleman had this terrible feeling, yet when he could muster sufficient courage to take a deep and full inspiration, he found the *greatest possible relief* from it. May we not account for this by the expanding lung pressing against the gradually distending heart, and thus assisting it in its getting rid of the accumulating blood? Taking a deep inspiration, and retaining the breath, affords relief from this feeling so long as the lung is expanded. This can, I think, be accounted for in the same way. Added to the weakened condition of the heart, is, as I have said before, often found ossification of the large vessels or valves about the heart, which will prevent the free evacuation of the blood from the cavities, and in this way assist in dilating them; and I think we can easily understand how the elasticity or living force of an organ like the heart may be overcome by extreme distension. Hence, though a heart diseased may be fit for the purposes of common circulation during a state of bodily and mental tranquillity, and of health otherwise good, yet, when any unusual exertion is required, its powers may fail under the new demand; accordingly, we find that "angina" is readily excited by those passions, the tendency of which is to stimulate the heart to excessive contraction. Thus we find that many of the recorded cases proved fatal while the patient was in a violent transport of anger.

The symptoms of angina are as readily accounted for on this theory, for the pain may be due to the distension of the heart and large veins; indeed, the increased volume of the heart more readily accounts for the pain shooting along the arms, from pressure upon the nerves, than from any phenomena connected with spasm. Mr. Home, however, attributes the pain to the pressure of the nerves of the heart against the rigid coronary arteries during the paroxysm. The cause of sudden death from angina pectoris, while the patient is asleep, can hardly be accounted for in the same way as I have accounted for a paroxysm. It is more likely, I think, that the patient suddenly starting in his sleep, the blood is driven forward to a heart already in a very weak condition, with such an impetus, that the violent effort it makes to contract and propel the blood onward, is too much for some of its attenuated fibres, and that a minute rupture takes place, causing instantaneous death; the rupture being so minute as to be unobservable to the naked eye. Such is the opinion I have formed regarding sudden death from angina while the patient is asleep. Before closing, I will notice one objection, or rather one more argument, which the supporters of the spasmodic theory may be inclined to adduce. They may say that the spasm may be only sufficient to impede, not destroy the circulation. To this Stokes says it is difficult to understand how such a thing should occur, for a complete spasmodic closure of any one cavity ought to cause death by breaking the continuity of the circulation. As regards the use of opium, it seems to be of but little value, except as a narcotic; if it was likely to benefit as an antispasmodic, surely it would have been of use to my patient when injected hypodermically (at almost the commencement of a paroxysm), the most speedy way of its entering the circulation.

The difference of opinion respecting the condition of the heart during a paroxysm might be overlooked, were it not likely to influence the treatment; but as the treatment of spasm differs materially from that of debility, the disputed point becomes one of some importance. If, for instance, the spasmodic view be adopted, the remedy ought to be found in chloroform; but I have been unable to find any recorded cases in which its administration has been attended with benefit. On the contrary, Dr. Stokes mentions a case of *intercostal neuralgia,* in which the external application of chloroform produced convulsions and collapse, which lasted for many hours. Adopting the other view of the pathology of the disease, the remedies which should be used ought to be stimulants, together with the careful avoidance of all depressing agencies, such as over-exertion of mind and body, ebullitions of temper, sudden surprises, &c. &c. The treatment of course can only be palliative, for the constant concurrence of organic disease precludes the possibility of a permanent cure.

Before closing, I can but express the hope that the next few years may elicit more concerning the pathology of this interesting disease than have the previous sixty-three years.

On the conclusion of the paper an animated discussion took place, which lasted for about two hours, in which Mr. Pettigrew, whose dissections of the heart have elicited so much admiration, Mr. Berryman, assistant to Professor Simpson, Dr. Caffe, Mr. Duncan, Mr. J. Crichton Browne, and numerous others, took part—the majority speaking against the spasmodic theory.—*British American Journal.*

Health of Scotland.—During the month of September there were registered in the eight principal towns in Scotland the births of 2575 children, 1329 being males and 1246 females. Of these 274 were illegitimate, being 10.6 per cent. The deaths registered during the month were 1754. Of these 870 were males, and 884 females, the rate of mortality being higher than in any previous September registered, except in 1857. The zymotic class of diseases proved fatal to 415 persons, or 23 per cent. of the mortality. The month was characterized by a high barometer; the quantity of rain that fell was, with one exception, the least recorded.—*Lancet.*

Bibliographical Notices.

Stromeyer (Dr. Louis) and Esmarch (Dr. Friedrich) on Gun-shot Injuries. Translated by S. F. Stratham. Philadelphia: J. B. Lippincott & Co. 1862. 12mo. Pp. 120.

The Rebellion, while it has developed the energies of our population in the art of war, has drawn out a series of books—many of them valuable, and some almost worthless—on the subject so new to our medical men, military surgery. The present volume belongs to the former of these classes; it is really valuable.

These distinguished Germans, the former Surgeon-in-Chief, and the latter Surgeon of the Schleswig-Holstein army, in the campaign of 1849 against the Danes, give us the result of their valuable experience in a concise, practical way—the former on gun-shot fractures, the latter on resections in gun-shot injuries.

Dr. Stromeyer's article is devoted entirely to gun-shot fractures and the treatment of these injuries. In the early part he describes quite minutely the action of various forms of ball on bone under various circumstances. He advises to dispense entirely with the probe in the examination of gun-shot wounds—the index finger is the natural probe, and that alone can estimate the amount of damage in these cases, with the consequent comminution of bone, opening of joints, tearing of nerves and muscles and other damage; and, indeed, in hardly any case can this style of probe not be made available, except where the finger proves too short to reach the bottom of a sinus. The external wound is almost always smaller than the inner tract, the integuments forming a constriction, which, once passed, offers no farther obstacle to the examination. No patient should be allowed to remain in a hospital twenty-four hours, in cases where a perforating wound has been received, especially if bone has perhaps been injured, without a thorough digital examination, under ether if necessary, to ascertain the exact condition of the parts: otherwise the surgeon must work entirely in the dark, and learn, perhaps too late, that what he thought a simple flesh wound covers thoroughly comminuted bone.

Most of Stromeyer's views on treatment seem very just, and according to the principles of our own schools. He quotes the opinion of another, "those cases proceed the best which are not meddled with." The removal of foreign bodies, rest, antiphlogistic treatment and care for the free escape of pus, are the principles on which he starts. He however advises venesection, a practice not sanctioned in most cases by our surgeons. The remainder of his article is devoted to the consideration of wounds of single bones.

Dr. Esmarch divides his work into two portions—on the injuries of shafts of bones by bullets, and on gun-shot wounds of joints. The general tone of both of these surgeons is conservative, and the satisfactory results, in most of their cases mentioned, testify to the propriety of such a course. Such a course must, it is true, be decided in large part by the peculiar exigencies and circumstances of the war—for we know that while the result of amputation in the Crimea was generally favorable, and of resections unfavorable, the result in the Schleswig-Holstein campaign was exactly reversed—and also by the nature of the case in hand: for, while one would hesitate before exsecting the entire femur, *to save the leg* (as is *reported* to have been done), or removing the entire carpus with an inch of the radius and ulna, for a badly comminuted wrist (as we know to have been advised), can we but shudder at the reckless butchery which we know to have been done in our own service, and may we not rather err on the conservative than the heroic side?

Esmarch asserts that, in a large number of cases, extensive comminution of the larger osseous shafts may be cured without operative interference. Of course the patient must be placed under favorable influences and good treatment. Many owe the loss of limbs simply to careless transport from the field to the hospital. What with rough roads, rude wagons and cruel ambulance drivers, many cases, simple at first, have been rendered complicated; and here let us suggest the use of Smith's anterior splint—now so largely used in our military hospitals—in the transport of men with badly shattered limbs. The action of this is simply, in the first place, to make the comminuted limb *a unit* by suspending it from the splint, and next, to isolate it entirely from all surroundings by slinging it from the top of the ambulance. No other plan, it seems to us, offers so complete isolation and consequent ease. Esmarch's treatment in injuries of the continuity coincides very nearly with that of our own neighborhood and time.

The especial value of this little volume, however, is contained in the article on gun-shot injuries of joints, in which the whole matter of exsection and resection is discussed. To say that the surgeons of this campaign had *a number* of cases of this character would be stating but a part of the truth; in fact, they seemed to strive to bring *all* cases in any way fitted for it, to resection, and their testimony is to that degree valuable, as they have made it so strictly a specialty. While Esmarch considers that active interference should be avoided in injuries of the shaft, if possible, he is convinced that injuries of the joints require operation. The remainder of the book is devoted to the joints; careful directions regarding treatment and operation, and a list of cases, being given.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, DECEMBER 18, 1862.

French Ambulance Knapsacks.—Through the kindness of Dr. J. Mason Warren, we have been permitted to examine three French ambulance knapsacks, which he has recently received from Mr. Turner Sargent, of this city, now resident in Paris. These knapsacks were purchased at the suggestion of Dr. Warren, one of them at his expense and two at the expense of Mr. Sargent, and are intended as gifts for three of our Massachusetts regiments. This knapsack has stood the test of two campaigns of the French army, and may be considered as the best contrivance for the purpose intended which has yet been devised. It is every way superior to that hitherto used in our army. We translate from the *Systéme des Ambulances*, &c., by M. Boudin, the following description of this useful companion of the French military surgeon:—

"A ministerial decree of the 22d of December, 1839, provides that each battalion of infantry shall be supplied with an ambulance knapsack, attached to which is a cylindrical case of tinned iron, fastened with a padlock, and protected by a covering of striped ticking, which is double and water-proof. This cylinder takes the place on top of the knapsack of the covering for the soldier's coat. The whole knapsack conforms in weight and dimensions with that carried by the infantry. It contains the following apparatus:—

"1st. THE CYLINDER.—Contents:—A case containing the following instruments:—1 tourniquet, with a buckle and two pads (Charrière's model): 2 amputating knives, in sheaths, each 22 centimetres long; 1 double-edged knife, in a sheath, 22 centimetres long; 2 straight bistouries, of which one has a narrow blade, with black horn handles; 1 convex bistoury, with a black horn handle; 1 amputating saw (Charrière's pattern): 1 additional saw-blade, very narrow, to take the place of a phalanx saw; 1 pair of artery forceps, with a slide which can be fastened at will; 2 suture needles (Larrey's pattern); 1 ball-forceps, strong (Baudens's pattern), for the extraction of splinters, polypi and all foreign bodies; 1 oesophageal sound, a tube of India rubber tissue of double thickness; 1 whalebone probang, which also answers as a style for the sound; 2 sounds, provided with eyes at the end as well as in their stylets; 1 cylindrical case; 1 covering of water-proof cloth; 1 knapsack of tinned iron, divided into compartments, and fastened with a padlock.

"2d. THE KNAPSACK.—Upper compartment. Contents:—Half a pound of lint; five little sheets of carded cotton, 20 centimetres by 23 centimetres, to be used as lint; 2 medium-sized splints.

"Intermediate compartment. Right case:—11 rolled cotton bandages of different sizes; 5 rolled linen bandages of different sizes; 1 piece of tape, 2 centimetres wide and 8 millimetres long. Left hand case:—Three head-bandages of cotton cloth, of different sizes; 14 cotton compresses of different sizes; 7 linen compresses of different sizes; 1 linen body bandage.

"Drawer, or lower compartment. Right hand cases:—1 flask, with a ground stopper, containing 60 grammes of tincture of sulphuric ether; 1 flask, with a cork stopper, containing 30 grammes of laudanum. Left hand cases:—1 flask, with a glass stopper, containing 60 grammes of camphorated spirit; 1 flask, with a cork stopper, containing 60 grammes of olive oil.

"Middle compartment:—1 tin cup; 1 cupping glass; 1 sponge; 1 square vessel of tin, intended to be used as a wash basin; 1 flask, with ground stopper, containing 30 grammes of aqua ammoniae; 1 corkscrew; 1 roll of isinglass plaster; 50 pins; 1 piece of wax; 1 wax candle; 1 pencil; 10 needles for sewing; 1 packet of 2 grammes of tartar emetic (each packet containing one decigramme); 1 packet of 4 grammes of sulphate of quinine (in packages of 2 decigrammes); 1 box of friction matches; 1 roll of plaster; 1 piece of oak agaric; 1 ball of grey thread; 1 package of corks to fit the flasks.

"The linen and the instruments are sufficient to dress three wounds of the head, one wound of the chest, and for an amputation of the arm or leg, or to dress about twenty light wounds.

"The chiefs of corps designate the place which the man who carries the ambulance knapsack shall occupy, in marches or military movements, so that he may always be as near as possible to the surgeon."

The knapsack is covered with calf-skin, dressed with the hair on, which is entirely impervious to water. The whole apparatus is remarkable for its compactnesss and durability.

New Diet Table for United States Military Hospitals.—We print below a new diet table for the Military Hospitals of the United States, which has recently been sent to certain of these institutions for trial for thirty days. It will be seen that it is all that could be desired as to quantity and variety of the articles furnished; indeed, there seems to be a likelihood that there will be in some instances a considerable redundancy in the amount of provisions supplied. As the quantity to be distributed at each meal is definitely given, and the table is to be followed literally for thirty days as an experiment, there can be no departure from it, by crediting any portion of it not needed to the hospital fund. The only alternative of a surgeon who sees good food in danger of being wasted by a literal compliance with the order, is to place some of his patients, who are in a condition to be put on full diet, in a class below. We have recently happened to see, in a hospital which we were visiting, a large quantity of excellent bread, most of which was spread with good butter, which had been rejected in one day by the patients as being more than they could eat. When put in the scales, it was found to weigh nearly sixty pounds! As the new diet table is as yet but an experiment, doubtless such danger of waste will be avoided when it is completed in a permanent form. As it stands, it is only one more evidence of the bounty with which our Government provides for the wants of its sons who are the sufferers from this wicked rebellion. Nothing could more effectually silence anonymous newspaper slanders about the supplies of food to our soldiers in hospital.

ARTICLES COMPOSING THE DIFFERENT DIETS FOR A DAY, AVOIRDUPOIS WEIGHT.

FULL DIET.		
Meat	oz.	16
Bread	oz.	18
Potatoes	oz.	8
Other vegetables	oz.	8
Rice, hominy, or Indian meal	oz.	1.60
Salt	gill	0.16
Coffee	oz.	0.80
Tea	oz.	0.12
Sugar	oz.	2.40
Milk	oz.	8
Butter	oz.	1
Flour	oz.	0.25
Molasses	gill.	0.32
Vinegar	gill.	0.32
Tuesday, *in lieu of Fresh Meat :*		
Pork	oz.	8
Beans	gill.	0.64

HALF DIET.		
Meal	oz.	8
Bread	oz.	16
Potatoes	oz.	6
Other Vegetables	oz.	6
Rice, hominy, or I. meal	oz.	1.60
Salt	gill.	0.16
Coffee	oz.	0.80
Tea	oz.	0.12
Sugar	oz.	2.40
Milk	oz.	8
Butter	oz.	1
Flour	oz.	0.25
Molasses	gill.	0.32
Vinegar	gill.	0.32

CHICKEN DIET.		
Fowl	oz.	12
Bread	oz.	18
Salt	gill.	0.16
Tea	oz.	0.24
Sugar	oz.	2.40
Milk	oz.	3
Butter	oz.	1

LOW DIET.		
Meat	oz.	8
Bread	oz.	14
Salt	gill.	0.16
Tea	oz.	0.24
Sugar	oz.	2.40
Milk	oz.	8
Butter	oz.	1
Rice, farina, corn starch, or bread, made into pudd'g,	oz.	2

MILK DIET.		
Bread	oz.	14
Rice	oz.	2
Milk	pt.	3
Sugar	oz.	1

BEEF-TEA DIET.		
Beef (without bone)	oz.	8
Bread	oz.	12
Salt	gill.	0.32
Tea	oz.	0.24
Sugar	oz.	2
Milk	oz.	4

EXTRA DIET AND DRINKS.

Beef steak.
" essence.
" extract.
Mutton chop.
" broth.
Veal cutlet.
Ham, broiled.
Poultry.
Game.
Eggs.

Fish.
Oysters, raw.
" stewed.
Clam soup.
Vegetables (special).
Milk.
Sugar, white.
Sugar, brown.
Barley.
Cracked wheat.

Gruel, corn meal.
" oat meal.
Farina.
Corn starch.
Tapioca.
Crackers.
Toast.
Chocolate.
Cocoa.
Blanc mange.

Wine jelly.
Custard.
Oranges.
Lemons.
Fruits.
Ice.
Barley-water.
Rice-water.
Jelly-water.
Lemonade.

Wine whey.
Brandy.
Whiskey.
Wine, sherry.
" ———
Porter.
Ale.
Cider.
Milk punch.

FULL DIET.

SUNDAY.

Breakfast.	Coffee	pt.	1
	Bread	oz.	6
	Butter	oz.	½
	Hominy, boiled	oz.	2
	Molasses	gill.	0 32
Dinner.	Roast beef	oz.	16
	Potatoes	oz.	8
	Other vegetables	oz.	8
	Bread	oz.	6
	Rice Pudding.		
Tea.	Tea	pt.	1
	Bread or Crackers	oz.	6
	Cheese	oz.	3

MONDAY.

Breakfast.	Coffee	pt.	1
	Bread	oz.	6
	Butter	oz.	½
	Cold meat	oz.	4
Dinner.	Beef soup	pt.	1
	" " meat	oz.	12
	Bread	oz.	6
	Potatoes	oz.	8
	Other vegetables	oz.	8
Tea.	Tea	pt.	1
	Bread	oz.	6
	Butter	oz.	½

SATURDAY.

Breakfast.	Coffee	pt.	1
	Bread	oz.	6
	Butter	oz.	½
	Hominy, boiled	oz.	2
	Molasses	gill.	0 32

TUESDAY.

	Coffee	pt.	1
	Bread	oz.	6
	Butter	oz.	½
	Meat hash, with vegetables	oz.	8
	Pork } Baked	oz.	8
	Beans } or in soup	gill.	0 64
	Potatoes	oz.	8
	Other vegetables	oz.	8
	Bread	oz.	6
	Indian Pudding.	oz.	
	Tea	pt.	1
	Bread	oz.	6
	Butter	oz.	½
	Fruit, stewed	oz.	4

WEDNESDAY.

	Coffee	pt.	1
	Bread	oz.	6
	Butter	oz.	½
	Indian meal, boiled	oz.	2
	Molasses	gill.	0 32
	Beef, recently corned, or fresh, boiled	oz.	16
	Potatoes	oz.	8
	Other vegetables	oz.	8
	Bread	oz.	6
	Pickles	oz.	1
	Tea	pt.	1
	Bread	oz.	6
	Butter	oz.	½

SATURDAY.

Dinner.	Semi-stewed beef or mutton	oz.	12
	Do. do. soup	pt.	1
	Potatoes	oz.	8
	Other vegetables	oz.	8
	Bread	oz.	6

THURSDAY.

	Coffee	pt.	1
	Bread	oz.	6
	Butter	oz.	½
	Meat hash, with vegetables	oz.	8
	Semi-stewed beef or mutton	oz.	12
	Do. do. soup	pt.	1
	Potatoes	oz.	8
	Other vegetables	oz.	8
	Bread	oz.	6
	Tea	pt.	1
	Bread or crackers	oz.	6
	Cheese	oz.	3

FRIDAY.

	Coffee	pt.	1
	Bread	oz.	6
	Butter	oz.	½
	Fish, fresh or salt	oz.	8
	Cod-fish, in hash	oz.	8
	" with potatoes	oz.	12
	Beets or turnips	oz.	8
	Bread	oz.	6
	Bread pudding.		
	Tea	pt.	1
	Bread	oz.	6
	Butter	oz.	½

SATURDAY.

Tea.	Tea	pt.	1
	Bread	oz.	6
	Butter	oz	½
	Fruit, stewed	oz.	4

HALF DIET.

SUNDAY.

Breakfast.	Coffee	pt.	1
	Bread	oz.	6
	Butter	oz.	½
	Indian meal, boiled	oz.	2
	Molasses	oz.	0.32
Dinner.	Beef broth	pt.	1
	" " Meat	oz.	8
	Bread	oz.	4
	Potatoes	oz.	6
	Other vegetables	oz.	6
	Rice pudding.		
Tea.	Tea	pt.	1
	Bread	oz.	6
	Butter	oz.	½

MONDAY.

B'kf't.	Coffee	pt.	1
	Bread	oz.	6
	Butter	oz.	½
Dinner.	Beef soup	pt.	1
	" " meat	oz.	8
	Bread	oz.	4
	Potatoes	oz.	6
	Other vegetables	oz.	6
Tea.	Tea	pt.	1
	Bread	oz.	6
	Butter	oz.	½

SATURDAY.

Breakfast.	Coffee	pt.	1
	Bread	oz.	6
	Butter	oz.	½
	Hominy, boiled	oz.	2
	Molasses	gill.	0 32

TUESDAY.

	Coffee	pt.	1
	Bread	oz.	6
	Butter	oz.	½
	Hominy, boiled	oz.	2
	Molasses	gill.	0.32
	Mutton or beef broth	pt.	1
	" " meat	oz.	8
	Bread	oz.	4
	Potatoes	oz.	6
	Other vegetables	oz.	6
	Indian pudding.		
	Tea	oz.	1
	Bread	oz.	6
	Butter	oz.	½

WEDNESDAY.

	Coffee	pt.	1
	Bread	oz.	6
	Butter	oz.	½
	Beef soup	pt.	1
	" " meat	oz.	8
	Bread	oz.	4
	Potatoes	oz.	6
	Other vegetables	oz.	6
	Tea	pt.	1
	Bread	oz.	6
	Butter	oz.	½

SATURDAY.

Dinner.	Beef soup	pt.	1
	" " meat	oz.	8
	Bread	oz.	4
	Potatoes	oz.	6
	Other vegetables	oz.	6

THURSDAY.

	Coffee	pt.	1
	Bread	oz.	6
	Butter	oz.	½
	Indian meal, boiled	oz.	2
	Molasses	gill.	0 32
	Beef or mutton broth	pt.	1
	" " meat	oz.	8
	Bread	oz.	4
	Potatoes	oz.	6
	Other vegetables	oz.	6
	Tea	pt.	1
	Bread	oz.	6
	Butter	oz.	½

FRIDAY.

	Coffee	pt.	1
	Bread	oz.	6
	Butter	oz.	½
	Cod-fish hash, with potatoes	oz.	8
	Bread	oz.	4
	Vegetables	oz.	6
	Bread pudding.		
	Tea	pt.	1
	Bread	oz.	6
	Butter	oz	½

SATURDAY.

Tea.	Tea	pt.	1
	Bread	oz.	6
	Butter	oz.	½

	CHICKEN DIET.			LOW DIET.		
B'k'ft.	Tea	pt.	1	Tea	pt.	1
	Bread	oz.	6	Bread	oz.	5
	Butter	oz.	½	Butter	oz.	½
Dinner.	Chicken	oz.	12	Beef-tea, or mutton or chicken broth	pt.	1
	Or chicken soup	pt.	1	Bread	oz.	4
	Bread	oz.	6	Rice, farina, corn starch, or bread in pudding	oz.	2
Tea.	Tea	pt.	1	Tea	pt.	1
	Bread	oz.	6	Bread	oz.	5
	Butter	oz.	½	Butter	oz.	½

	MILK DIET.			BEEF-TEA DIET.		
B'ft.	Milk	pt.	1	Tea	pt.	1
	Bread	oz.	6	Bread	oz.	4
Dinner.	Rice	oz.	2			
	Milk	pt.	1	Beef-tea	oz	12
	Bread	oz.	4	Bread	oz.	4
	Sugar	oz.	1			
Tea.	Milk	pt.	1	Tea	pt.	1
	Bread	oz.	4	Bread	oz.	4

NOTE.—Medical officers who receive this diet table are directed to adopt it immediately in the hospitals under their charge, and to comply strictly and carefully with its provisions for thirty days, keeping during that time an accurate account of expenditures from the Hospital Fund. At the end of that time they will report the results of this experimental trial, its effects upon the sick and upon the Hospital Fund, and will make such suggestions as they may deem appropriate, the object being to test the practical operation of the diet table, before adopting it as the standard for the General Hospitals.

It is recommended that the diets be prepared according to receipts in the Steward's Manual.

Surgeon-General's Office, October 23, 1862. WM. A. HAMMOND, Surgeon-General U.S.A.

METHOD OF SUPPLYING ARMY SURGEONS.—We are glad to see that the views expressed by the Medical Commission of Massachusetts, in their recent letter to the Surgeon-General, meet with approval elsewhere. The following letter, by E. P. Bennett, M.D., of Danbury, Conn., is addressed to the Editor of the New York *Medical Times*, and is copied from the issue of that work for December 13th.

"SIR,—I noticed in your issue of this week a notice of a letter from several surgeons of Boston, addressed to the Surgeon-General, in reregard to the incompetency of many of the army surgeons. Now when we take into consideration the number of surgeons in the field, and the manner in which they have been appointed, it is not wonderful that such should be the case. As a general thing, the older surgeons have been broken down political hacks, who had no business at home, and therefore could carry with them no practical experience into the army. Then, again, a great proportion of the surgeons are young men. Many of this class are talented and well educated, theoretically, and, under the guidance of men of more mature years, will come to be ornaments to their profession. These young men, I know, would gladly avail themselves of the practical experience of older men. There is also a class of ignorant men, who gained their appointments by political influence, which neither time nor circumstances can alter for the better; they are not capable of improving by experience.

"The remedy suggested by the Bostonians is just the thing wanted, as I am satisfied by actual inspection of a number of hospitals. I have just returned from a visit to the hospitals at Frederick, where I spent three days in visiting the principal hospitals, and in social converse with the gentlemanly surgeons there congregated, and I am happy to say that I never spent three days more pleasantly. The hospital arrangements, so far as circumstances will permit, are excellent. They are generally well ventilated, admirably arranged, and perfectly neat and orderly in every respect. I was most happy to see that our brave soldiers were so well cared for and so kindly treated; also that the same kindness was extended to the Confederate soldiers who were so fortunate as to fall into our hands. In this respect no distinction was made: friend and foe, side by side, equally well cared for. The surgeons there in charge impressed me most favorably, as able and judicious. Among the most able and experienced were Drs. Hewitt and Lewis, of Connecticut, and Dr. Mosely, then Medical Inspector for New York.

"But still I felt there was need of more men of age and experience, to do those very things pointed out by the Boston surgeons, with the exception that they should not be allowed to decide upon or designate the one to perform the operations. Such an arrangement, I am satisfied, would operate injuriously, as it would lead to favoritism, and would go far to discourage and dissatisfy the younger surgeons who go there for experience. Almost any one can amputate a limb, and, with a little advice, can do it well. Older men are required rather as consultants, and to give advice in regard to the medical treatment of the sick and wounded. The Surgeon-General, in reply, says: Very few first class surgeons have come forward, and he appears to be rather surprised that they have not. The reason, in my opinion, is plain. Men of age and experience are generally physically incapable of following a regiment and enduring the hardships of camp life; besides, they are generally in the enjoyment of a good practice, which they do not feel disposed to leave without a corresponding compensation. Then, again, this class of men have been long from the schools, and in regard to minute anatomy have forgotten much; but on the cadaver they will show you at once that they are at home in anatomy, so far as necessary for usefulness. These men do not like to go before a board of examiners, who have only good memories, and submit to an examination in minutiæ which are of no practical importance, and which have escaped them. These men are well known to the profession by their contributions to the medical and surgical literature of the day, and are personally known to many of our ablest surgeons and professors. There are many such men of acknowledged ability as surgeons, who would be willing to serve their country if they could be appointed by giving the best of references, or certificates of qualification, but will never enter the service if they have to go through the red-tape process. In regular service, where young men alone are permitted to enter, this course would not do, but in the volunteer service great efficiency could be given to the medical corps in this way. A committee of men of world wide talent from each State could designate such men as would be suitable."

THE SHEPPARD ASYLUM AT BALTIMORE, MD.—The following notice of a new lunatic asylum to be established at Baltimore, is from Dr. C. A. Lee's interesting European Correspondence, published in the *American Medical Times*. He had just visited an insane hospital at Clermont, in France, which he describes, and adds—

"I was accompanied in my visit, as I have also been to several other asylums, by Dr. Brown, of the Bloomingdale Insane Asylum, near New York, who is inspecting similar institutions in Europe, at the request of the Trustees of the Sheppard Asylum at Baltimore, Md. This institution was founded by the late Moses Sheppard, a wealthy merchant of the Society of Friends, who, several years before his death, conceived the project of testing the curability of unfavorable cases of insanity, by a more liberal expenditure of money than the friends of most asylums would reasonably permit. To this end Mr. Sheppard, having no relatives, left his whole fortune, amounting to six hundred thousand dollars, to found and maintain an experimental institution for one hundred patients. After several years of careful consideration, the Trustees of the Sheppard Asylum have commenced the construction of their building, on a plan submitted by Dr. Brown, who now studies the organization and management of European asylums, to report whatever may serve to carry out the humane purposes of the benevolent founder of this unique institution. Dr. Brown, after having visited the most celebrated asylums in Great Britain, Holland, Germany, Switzerland, and France, expresses regret at having found, thus far, but inconsiderable rewards for the liberality of the Board he represents."

THE following order has just been sent out by the Surgeon-General. It is undoubtedly a wise one, so far as the regulating the number of beds to be placed in any hospital when originally organized goes. The difficulty is to keep the number of patients down to the standard proposed. We were recently at Fortress Monroe when this order was received at one of the large hospitals of that station. Measured by its requirements it was already greatly overcrowded; and yet the Medical Director did not hesitate to send in great numbers of patients sick with typhoid fever and measles from the ships of Gen. Banks's expedition lying in the roads, who filled the buildings to excess. The ventilation was generally good, owing to the special care of the officers, although the air space was, in many instances, hundreds of feet per man less than the prescribed quantity. Necessity knows no law.

"SURGEON-GENERAL'S OFFICE,
WASHINGTON, November 24, 1862.

"The Surgeon-General directs that the minimum allowance of cubic feet of space for patients in tents and military hospitals shall be as follows:

"1st. In all rooms ventilated by windows at the end or one side only, 1200 cubic feet per man.

"2d. In all hospitals constructed after plans approved by the Surgeon-General (pavilions with ridge ventilation), 600 cubic feet per man.

"3d. In all other buildings occupied as general hospitals, 800 cubic feet per man.

"The maximum number of patients allowed in a hospital tent shall be five in winter and eight in summer.

"By order of the Surgeon-General,
JOSEPH R. SMITH, *Surgeon U.S.A.*"

EARLY MARRIAGES.—From the interesting figures which Mr. Hermann Merivale has collected concerning the population of France, we may draw some good illustrations of the importance of early marriages to the well-being of the individual and for the progressive strength of the nation. The rate of mortality in France has not increased since the beginning of this century; the number of marriages has not diminished, it has remained stationary. Nevertheless the population of France has remained stationary, while our own has enormously increased. The "prudential check" on births has operated through later marriages, owing to the want of outlet for population by emigration. The result of this tendency to late marriages in France is, that the average fecundity of such unions is far below that in this country, and is steadily but slowly diminishing. Here the annual rate of fertility may be represented by 4.5. In France it has been, in 1822–31, 3.64; 1832–41, 3.41; 1842–51, 3.19; in 1855 it had fallen to 2.96; in 1856 it rose to 3.11. Nothing can bring out more clearly the unnatural and deteriorating influence of late marriages. Every physiologist and every physician knows that in proportion as advanced age operates to limit the number, so also does it affect the development and force of the children. The scanty offspring of late marriages will always, man for man, present a marked inferiority in physical qualities to the more numerous race springing from young and healthy parents. There are accessory conditions engendered by this state of society, this "prudential check" upon marriages, which increase the evil. The irregularities of unmarried youth too often taint the blood and sap the force of the procrastinating husband; the irregular unions which abound in France are as notoriously infertile as they are dangerous. In this country, modern habits of luxury threaten to have an operation only less dangerous because more limited than the "prudential check" arising in France from an absence of outlet by emigration. The figures which we quote afford striking illustrations of its dangers, and should give a fresh impulse to statesmen and moralists in combating the tendency to late marriages.—*Lancet.*

Tracheotomy Tube dropped into the Left Bronchus.—At a recent meeting of the Medico-Chirurgical Society of Edinburgh, Mr. Spence mentioned the particulars of a rare accident which had come under his notice. A man had had tracheotomy performed several years ago by Mr. Edwards, and had since worn a double tube. Yesterday, while riding on horseback, the rim of the tube, which had been gradually wearing, gave way, and it fell, as the man expressed it, "into his chest." The man went at once to Mr. Edwards's house, but as that gentleman was from home, his assistant put in another tube and sent him to the hospital, where he came under Mr. Spence's care. When Mr. Spence saw the patient he was breathing quite freely, and the sounds on auscultation were very much the same on the two sides of the chest. A probe was in the first instance passed down into the right bronchus (into which it was generally said that foreign bodies fell) but nothing was felt; it was then passed into the left bronchus, and the tube was at once felt. An attempt was then made to extract the tube without enlarging the wound, but was unsuccessful. Chloroform was then administered, the opening was enlarged by cutting through two or three of the rings of the trachea, a pair of bent forceps was introduced, the tube was seized, drawn to the opening, and then extracted. Mr. Spence observed that so far as he knew this was the only case of the kind, but it should teach cutlers to make their tubes in two lateral halves and then join them together; for when, as at present, the shield was fastened to the tube, the soldering must in course of time give way.—*Edinburgh Medical Journal.*

Diet in the British Army.—Dr. Gibson, the Director-General of the Medical Department of the Army, has represented that the daily ration of meat allowed to the soldier is insufficient to enable him to support the fatigue of duty, and recommends that the supply be increased from three quarters of a pound to a pound daily.—*Lancet.*

Fattening Cattle on Cod-Liver Oil.—A farmer of Haubourain, France, has just tried the experiment of fattening cattle by the use of cod-liver oil. The trial was first made upon two calves, eight sheep and two pigs. The result surpassed all expectation. In ninety days they were all in prime condition, the flesh being perfectly white and of easy digestion. The quantity given was—to the pigs sixty-three grammes (two ounces) per day, to the sheep thirty-one grammes, and to the calves fifty grammes. For the calves the oil was mixed with bran and chopped straw, for the sheep with bruised beans, and for the pigs with their regular food.—*Living Age.*

Inefficient Examination of Recruits.—The following extract from a letter, purporting to be from a surgeon of one of the regiments which lately left this State, confirms the truth of the remarks which we have so often had occasion to repeat respecting the duties of examining surgeons:—

"Our greatest trouble is with men who should never have passed the examining surgeons of the towns, and if I had been able to inspect the regiment further, I would have thrown out twenty-five men. As it is I have made out some twenty certificates for disability. Among those passed were, one well known to have epileptic fits, five cases of hernia, three varicose legs, one chronic rheumatism, with knee joint spoiled, one deficient in intellect, one without a sound tooth, and one marked case of phthisis. I think the physicians who examined these men were more anxious to please their selectmen than to serve their country. The towns paid bounties to such specimens, and saved the obloquy (?) of a draft by sending such burdens into the field. It is amazing how many of our men were never stripped at the examination, which was very often by 'word of mouth' only."

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, December 13th, 1862.

DEATHS.

	Males.	*Females*	*Total*
Deaths during the week, ...	47	33	80
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	33.3	33.2	66.5
Average corrected to increased population, ...	..	..	72.7
Deaths of persons above 90, ...	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
15	0	2	0	7	1	1	1	1

Received.—The Dentist's Memorandum: a Book of Engagements, and Manual of Ready Reference, for 1863. By C. H. Cleaveland, M.D. Cincinnati: Bradley & Webb, Printers.

Deaths in Boston for the week ending Saturday noon, December 13th, 80. Males, 47—Females, 33. Accident, 3—anæmia, 1—apoplexy, 3—disease of the bowels, 1—inflammation of the bowels, 1—disease of the brain, 2—inflammation of the brain, 2—bronchitis, 2—cancer of the womb, 1—consumption, 15—convulsions, 1—croup, 2—debility, 1—delirium tremens, 1—diphtheria, 1—dropsy, 2—dropsy of the brain, 2—dysentery, 1—erysipelas, 2—fever, 1—typhoid fever, 1—typhus fever, 1—disease of the heart, 2—infantile disease, 1—intemperance, 1—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 7—marasmus, 2—old age, 3—paralysis, 3—premature birth, 1—puerperal disease, 1—rheumatism, 1—sore throat, 1—smallpox, 1—tumor (of the abdomen), 1—unknown, 6.

Under 5 years of age, 24—between 5 and 20 years, 5—between 20 and 40 years, 18—between 40 and 60 years, 18—above 60 years, 15. Born in the United States, 52—Ireland, 25—other places, 3.

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THE WEAK-SIGHT OPHTHALMOSCOPE.

[Communicated for the Boston Medical and Surgical Journal.]

Mr. Editor,—The following note, appended to the word "Augenspiegel" (ophthalmoscope) on the first page of Jäger's recent work,* gives some account of the method of examining in which weak light and the upright image are used, and refers to the importance of this method. It has already been translated into the *Annales d'Oculistique* for July and August, 1862, and seems well worth an English rendering also. Perhaps you can give it a place in your Journal, and oblige Yours, &c. H.

I have already published, several years ago, in the *Oesterreichische Zeitschrift für praktische Heilkunde* (No. 10, 7th March, 1856), some particulars on the employment of the ophthalmoscope as an optometer. For those who may not have this paper, I take the liberty of repeating the following.

The best method of determining with the ophthalmoscope the state of the dioptric apparatus of an eye, is to observe the fundus in its virtual, upright picture by means of a mirror with strong light (concave mirror of seven inches focal distance), or, best, with weak light (mirror of Helmholtz).

The inverted, real picture does not present equally favorable circumstances and reliable tests for judging, and can, consequently, be made useful only in certain cases; for instance, when the observing or observed eye is short-sighted to a very great degree, when there are in the media diffused opacities of such intensity that they prevent a clear view of the fundus in virtual image, but allow it still in the real image, &c. To acquire the necessary expertness in using the ophthalmoscope for this purpose, one should examine normally constructed, sound eyes, accommodated for their far-point, and notice accurately the appearance of the picture and the circumstances of the observation. Especially observe the enlargement in which the picture appears, the diameter of the field of vision absolutely and relatively to the size of the pupil of the eye under observation. Observe the intensity of light and color, the sharpness of outline of the different parts; estimate the distance at which the picture appears to be; consider the refractive state of your own eye, and the kind and focal distance of the corrective glass, with the aid of which the largest distinct picture of the fundus is seen; measure, finally, the distance at which the examination can be performed easiest and for the longest time.

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* Ueber die Einstellungen des dioptrischen Apparatus im menschlichen Auge. Wien. 1861.
On the States of the Refractive Apparatus in the Human Eye. Vienna. 1861.

In judging of the above circumstances, there is no one standard for all observers. Nearly every one will designate and estimate differently from others the magnitude, color, intensity of light, the distance, &c., of one and the same picture. If, however, each observer has considered accurately and remembers the circumstances when the observed eye is in a given refractive state, all will recognize with equal certainty any deviation from this state, and, if the deviations increase in a given ratio, will be able to estimate similarly the degree of increase.

Notwithstanding the original difference in judging of the picture which is to be taken as the normal one, and notwithstanding the difference of the standard by which each observer estimates any deviation, similar deviations will be similarly estimated and a like judgment can be obtained upon the refractive state of a given eye.

We take, as the standard of comparison, the picture from a normally constructed eye when accommodated for its far-point, that is, for rays nearly parallel, and estimate the deviations of other eyes likewise when they are in accommodation for their far-point, since this state is generally easiest and surest to obtain, and if necessary can be compelled by mydriatics, and likewise is generally found in all eyes whose function is very much disturbed.

If by repeated observations we have become familiar with this normal picture, and then examine a short-sighted eye, the field of vision appears smaller, and the picture, in proportion to the degree of near-sightedness, nearer. The picture presents less intensity of light and color, but is more magnified and its outlines stand out less striking. The size of the pupil remaining the same, the whole of the papilla nervi optici is no longer seen at once, as it generally is when the eye is of normal construction and the pupil moderately wide.

We are, moreover, forced, in order to obtain a clear picture of the fundus, in proportion to the degree of near-sightedness, to use stronger concave glasses and to get nearer to the patient.

On the other hand, when the eye is hypermetropic, the field of vision is obviously extended, the picture appears much farther off, its intensity of light and color is considerably stronger, and its size remarkably diminished, while the several parts gain in sharpness of outline and the whole picture gains in expression.

In cases of very great hypermetropia, we see all around the papilla to an extent equal or greater than that of the papilla itself, so that the picture in extent appears quite similar to the real, inverted picture of an eye with the convex glass before it.

Equally remarkable is the difference in the choice of the corrective glass. If the observer is accustomed to see the picture of a normally constructed eye without the assistance of a glass, he needs, in the case of a hypermetropic eye, a correspondingly strong, convex, corrective glass (between the ophthalmoscope and the observer), or must supply its place by arranging his eye for the near (for diverging rays).

Finally, the distance between the observer and patient during the examination is greater, often very considerable.

The above specified differences between the picture of the fundus of a short-sighted or of a hypermetropic eye and that of an eye of normal construction, stand out, proportionally to the amount of short-sightedness or of hypermetropia, more decided, and therefore clearer and more striking. Consequently, with some practice, it is not at all difficult to perceive them and to use them with certainty.

One can, on the average, attain such exactness in determining in this way the dioptric state of a given eye, that in basing the selection of a pair of spectacles on such determination, there will result at the most only an error of one or two numbers, it being generally the case that such different numbers can be used.

To acquire this expertness, it is especially necessary not only to learn the condition of one's own eye, but also to become accustomed to recognize one's own state of accommodation from the kind and degree of effort attending it (without directly measuring the distance of the point accommodated for).

The observer should, moreover, in examining with the upright picture, accustom himself generally to call upon his power of accommodation as little as possible, and always observe the fundus through the weakest corrective glass which can be used in the given case. He should accordingly endeavor to observe eyes of similar character in the same manner and with the same corrective glass.

On the observer's side, a normally constructed eye is best adapted for these examinations; yet differently constructed ones, especially slightly near-sighted eyes, can attain equal expertness and certainty in judging. As previously remarked, there would only be a difference in the standard with which the other pictures are compared and in the use of the corrective glasses in each case.

Thus we obtain in the ophthalmoscope a very important means of recognizing the refractive state of an eye, and sufficiently for all practical purposes, if the fundus can only be seen. Independent of the natural ability and education of the patient, of his good or bad intentions, of the degree of functional ability of the organ, as well as of the age of the patient, and so in the case of the infant or of the aged, of an eye which sees or which is blind, the physician bases his judgment on objective appearances alone.

Every physician, especially in the army or in court, in all cases in which the patient, for whatever cause, is unable to give a definite account, or if the latter cannot be considered decisive, will only too frequently have occasion to recognize how valuable is such a determination, not dependent on the statement of the patient.

So exact an insight into the dioptric state of an eye, with such certainty and general applicability, is not to be obtained by any other method hitherto known; but yet the employment of the ophthalmoscope for this purpose has not hitherto been sufficiently regarded.

The chief cause of this is probably, as it seems to me, the circumstance that it is so often the case that the examination of the picture in inverted image is preferred, and almost alone practised.

The advantages of the inverted picture, its intensity of light and color, the favorable relation of the degree of enlargement to the diameter of the field of vision, whereby it is possible to see a larger portion of the fundus at once, &c., are repeatedly overestimated, and the advantages of the upright image, especially with weak light, disregarded; the latter method has been considered more difficult, less efficient, and consequently not necessary and even superfluous, and in some quarters its use is looked upon as the sign of partiality and whim. Some observers content themselves with the advantages of the one method in making the diagnosis, and give up those of the other, though often with considerable loss to themselves. I use constantly both methods, and seek to make the most of the peculiar advantages of each in appropriate cases; just as in general I endeavor to neglect no means that seem to promote the certainty and accuracy of the diagnosis. It seems to me, therefore, that while not disregarding the advantages of the one method, I may also be permitted to affirm the excellencies of the other; and even, after much experience, that it is obligatory to refer to them.

The examination in the upright picture, especially with the weak-light mirror, is practicable in the great majority of cases without dilating the pupil. This is an advantage of no slight practical value, inasmuch as the artificial dilatation, so frequently necessary for examination in the inverted picture, causes, if some power of vision still remains, trouble and alarm to the patient, owing to his accommodation being interfered with and to the glare of light—and also, inasmuch as herewith various reflections and imputations are unnecessarily occasioned against the physician, especially if the course and termination of the disease are not perfectly favorable.

The amount of light necessary for the real (inverted) picture is to some eyes troublesome, even injurious, and owing to the restlessness thereby occasioned in the patient, serves often to render the examination more difficult, and even to prevent it.

Although in general the repeated and protracted use of a strong-light mirror in the case of one and the same eye occasions no injurious consequences, yet there are cases in which this is by no means a matter of indifference, and I have seen several times, particularly in cases of inflammatory retinal affection, a remarkable aggravation of the symptoms, and even blindness set in, during or immediately after the examination.

The weak-light mirror (with the plane glasses of Helmholtz) gives in most cases a picture quite bright enough for the most accurate diagnosis. It is of the greatest value for the recognition of anomalies in the transmission of the rays through the transparent media, and of slight or diffused opacities in the media and fundus, and is often the only means of this recognition. It is almost the only means of recognizing, with sufficient certainty, slight differences of color and weak tints in the fundus, and especially on the optic nerve.

The great amount of enlargement in the upright picture, with the small degree of spherical aberration and the nearness of the picture, are, as regards the discernment of the size and situation of parts of the picture, the recognition of details, and frequently for the diagnosis, of equal value to the magnifying power of a microscope. A still greater degree of magnifying power in the ophthalmoscope, as well as the microscope, would indeed often be desirable; but why should we fail to prize that already obtained of fourteen diameters in comparison with that of from two to five diameters in the inverted image, and give up its advantages for the diagnosis.

Although in many cases the examination in the inverted picture is sufficient, and often the only one possible, yet in others the upright picture is altogether more advantageous, and frequently the only decisive one. The real (inverted) picture affords a quick survey of the whole, and a rapid view of the striking appearances; but only the upright in connection with it renders possible and allows a more exact study, a more complete and reliable diagnosis.

It is owing to this that in the construction of my ophthalmoscope which I have hitherto used (made by Kraft, in Vienna), I was careful above all to provide for the examination with weak light as well as strong, in the upright as in the inverted picture, although hereby the size and price of the instrument were increased.

Finally, as to the attainment of sufficient dexterity in examining in the upright and inverted pictures, the former method presents no greater difficulties than the latter; on the contrary, for those who have never used an ophthalmoscope it is more frequently the case that the fundus is easier to be seen in the upright picture, and this picture clearer and easier to be understood. * * * * *

ON THE CO-EXISTENCE OF TUBERCLE AND CANCER.

By D. Rutherford Haldane, M.D., Pathologist to the Royal Infirmary of Edinburgh.

Whether or not cancer and tubercle can co-exist in the same organism, is a question which has been frequently discussed, but which can scarcely be said to have been satisfactorily solved.

Some pathologists, perhaps the majority, have maintained that the two diseases are mutually exclusive, that they depend upon different or opposite constitutional conditions, and that the existence of one indicates the impossibility of the simultaneous presence of the other. Others, again, have not considered cancer and tubercle as of so decidedly specific a character; and, while allowing that the two are seldom associated, are quite prepared to meet with cases where they shall be found to co-exist. It is not my object to endeavor to solve this question in an absolute manner; but a case which lately came under my notice has led me to bring together a few general remarks on the subject.

In speaking of the possibility of the co-existence of tubercle and cancer, it must of course be premised that the only cases to be referred to are those in which both diseases are in an active condition, for that one may succeed the other is perfectly well known, and universally acknowledged. The order of succession is not, however, indifferent, for, in the great majority of cases, tubercle is the original, cancer the secondary disease. This mode of sequence probably depends upon the circumstance that tubercle is generally a disease of early, cancer of mature or advanced, life. In no small proportion of cases where cancer has been the cause of death, cretaceous concretions, or tubercle in a retrogressive or stationary condition, may be found in the upper part of the lungs. These cases, however, are not available in assisting us to answer the question proposed, for it is quite intelligible that the tubercular diathesis may have been recovered from, and that, therefore, there was no impediment to the development of the cancerous.

A priori considerations would certainly lead us to believe that the presence of the one morbid condition is incompatible with the simultaneous existence of the other. Neither tubercle nor cancer can be looked upon as a mere local condition; for even granting that either may be in the first instance generated by external causes, it cannot be denied that when the dyscrasia has been once established, the manifestations in the two conditions are of a different character. Our views on this subject, however, must be regulated by the opinions we entertain as to the mode of origin of new growths—a question which lies at the very foundation of pathology.

The doctrine which, till lately, was universally accepted, was this: owing to certain causes, known or unknown, an exudation from the bloodvessels takes place; in healthy persons, the matter poured out assumes more or less of the characters of the tissue in which it is effused, becomes converted into connective tissue, or degenerates into pus; while, if the system be under the influence of the tubercular or cancerous cachexia, the effused material is converted, under the influence of the constitutional condition, into tubercle or cancer, as the case may be. Granting this view to be correct, it seems impossible that cancer and tubercle could co-exist, for we cannot well imagine that the system could be under the influence of two such different dyscrasiæ at the same time. Arguments, however, are not wanting to show that such a mode of viewing the subject is erroneous. Did new formations take place in the manner alluded to, every exudation in a tubercular individual would necessarily be tubercular; but every-day experience testifies to the contrary. Pleurisy, in a patient suffering from phthisis, is not necessarily or even generally tubercular; connective tissue is organized, and adhesions are formed in precisely the same manner as in an individual in whom there is no constitutional taint. It is indeed said, that as the blood is continually undergoing changes, an exudation at one time may be very different from what it was at another; and that even when the constitution is thoroughly cancerous or tubercular, simple exudations may be poured into tissues as the result of recent wounds or injuries.* This, however, would not explain another circumstance which is frequently met with. In cases of tubercular pleurisy, pericarditis, or peritonitis, the organized exudation will generally be found to consist of two parts, one portion being manifestly composed of tubercle, the other of ordinary, or what we may call healthy, connective tissue. Here the matters forming the new structures must, according to the exudation theory, have been poured forth from the same bloodvessels, into the same tissues, at the same time, and under the same constitutional circumstances, and it is inconceivable that if differences in the product depended exclusively upon differences in the inherent composition of the exudation, two such different materials could have been contemporaneously developed.

Another argument to the same effect is derived from what is seen in cases of constitutional syphilis. The system is here under the influence of a peculiar dyscrasia, which manifests itself by deposits or exudations of a particular kind, and by influencing in a peculiar manner certain of the vital processes. On the hypothesis we are now considering, any healthy action should under these circumstances be impossible, every exudation should bear the special syphilitic stamp. This, however, we know not to be the case; wounds may heal, and fractures unite, as rapidly and as soundly in the syphilitic as in the healthy.

The other doctrine as to the genesis of new formations, has been most clearly enunciated by Virchow. Its supporters maintain that an exudation is not poured out directly from the bloodvessels, but that every new growth takes its origin from the tissues themselves. Cells can no more arise in situations where no cells previously existed, than new organisms can be produced by spontaneous generation. It can scarcely be doubted that in the physiological renovation of tissues the principle of *continuous development* holds good; and the best investigations go to prove that pathological formations obey the same law. There is now an overwhelming mass of evidence with regard to the origin of pus; and the evidence is scarcely less strong in the case of tubercle and cancer. Why the new tissue should assume a peculiar form, we do not know. We know that when all is going on normally, the process of decay is exactly balanced by the process of repair; although the elements of the tissues are constantly undergoing change, this change takes place so silently, and so continuously, that the parts appear to remain always the same. But now, let an irritant be applied to the tissue where everything was going on so smoothly. A tumultuous process is immediately set up; there is rapid destruction of tissues, but equally rapid repair; as Mr. Simon has well expressed it, "the *appreciability of the opposed results* is in itself a differential mark of inflammation."* The results even in the most healthy inflammations are, however, far inferior to the reproduction of tissue which goes on in health. The type of inflammatory products is invariably low; the higher tissues, such as nerve or muscle, skin or cartilage, are incapable of being thus produced. Now it is perfectly conceivable that the nature of the irritant may determine the character of the future product. Of this principle we have already some undoubted examples. The bite of a poisonous snake occasions an inflammation which runs on rapidly to gangrene. The irritation of a short hot pipe is believed to lead to epithelioma of the lip; while the frequent contact of soot leads to a similar affection of the scrotum. It is probable that this principle has wider applications than we are yet aware of, and that special forms of disease are often to be explained by something special in their causation.

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* Bennett's Principles and Practice of Medicine, 3d Edition, p. 151.

No doubt there is a difference in the character of the tissues themselves which explains their greater or less liability to particular forms of disease. The tissues of the soundest and healthiest individual are susceptible of inflammation, but it is questionable whether the same can be said with regard to tubercle. It is doubtful whether the ordinary causes of tubercle, such as insufficient food and clothing, damp, cold, impure air, and deficiency of light, can develop the disease in a sound constitution, without the slightest hereditary taint. Virchow, indeed, believes that every dyscrasia has a local origin; in other words, that there is first a local disease, that *it* is the cause of the poisoning of the blood, and that when the poisoning has once taken place, various secondary phenomena, manifestations of the now established dyscrasia, show themselves. He denies that certain changes can persist in the blood considered as an independent fluid, but maintains that, for the keeping up of a permanently morbid condition, there must be a permanent supply of noxious material from other sources. In pyæmia, for instance, the constitution of the blood is generally altered in two ways: there is the presence in it of small masses of fibrine derived from the disintegration of thrombi, and giving rise by embolism to metastatic deposits; and there is absorption of putrid juices, causing unhealthy and gangrenous inflammation. It cannot be questioned that there is much truth in this doctrine, and it is possible that future researches may show that it is of general application; but in the present state of our knowledge this cannot be said of it, for there are various constitutional conditions for which we have hitherto been unable to discover a local origin. This is especially true with regard to tubercle, for very often, before there is the slightest manifestation of local disease, a peculiar condition is established, which physicians have designated as the pretubercular stage of phthisis. The same is probably true with regard to cancer, though to a less extent, as the disease is less strikingly hereditary, and the early stage of the diathesis is less strongly marked. But although there be an early stage of constitutional affection previous to the development of the local disease, it does not follow that the first stage is to be considered as special—that is to say, as the manifestation of a specific dyscrasia. It may, in fact, be nothing more than a condition of generally impaired nutrition and constitutional weakness (which may or may not be hereditary), which makes the individual more susceptible to the exciting causes of the particular disease.

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* Holmes's System of Surgery, vol. i., p. 6.

One who holds, though even in a somewhat modified form, the views of Virchow, has much less difficulty in acknowledging the possibility of the co-existence of tubercle and cancer, than one who clings to the exudation theory. I fully believe that both tubercle and cancer are to a certain or even to a great extent constitutional, and that the constitutional conditions connected with them are of a different character; still I have no difficulty in believing that the two morbid conditions may occasionally co-exist. It is, however, only by an appeal to facts that a question of this kind can be decided, for no pathological laws are as yet sufficiently established to enable us to refer to them for a solution of such problems. So far as my own experience goes, I have never met with a case where I was satisfied that cancer and tubercle co-existed in an active form. Such cases have undoubtedly been recorded, and some unquestionably may have been instances of the kind; but I am satisfied that not unfrequently the observers were mistaken; in some the characters of the morbid products having been misunderstood, in others the tubercle having certainly been in a state of obsolescence. In illustration of the fallacies to be guarded against, I subjoin a case in which a mistake might readily enough have been committed.

Mary L., aged 40, was admitted, on account of cough and debility, into the Royal Infirmary, under the care of Dr. Gairdner, on the 22d of April, 1862. She stated that, though not robust, her health had been generally good, but that since the birth of her youngest child (four weeks before admission) she had suffered from cough, accompanied with febrile symptoms. She stated that she had never had hæmoptysis, and had never suffered from pain in the chest.

When admitted she was in a feverish condition, the skin was hot, the tongue dry and cracked. There was much cough, with scanty muco-purulent expectoration. On physical examination, there was no dulness on percussion, but the auscultatory signs of bronchitis were present, chiefly on the right side of the chest. About ten days after admission, percussion was found to be markedly dull over the right side. The following was her state on the 3d of May:—

Countenance pallid, no lividity, no flush. Voice broken and hoarse. Respirations, 36. No very marked dyspnœa; lies equally well on either side, or on the back, the latter being her usual position. When closely interrogated, could hardly be brought to admit any pain during the course of her complaint; but after leading questions, referred to the right side as the seat of a little uneasiness. Percussion quite dull over the right side of the chest from above the clavicle to the level of the nipple. Little respiratory sound in front, except above the clavicle, and there chiefly tubular. Sputum muco-purulent; mucus and pus about equally mixed; pus in flakes, not decidedly globular.

On the 2d of June her condition was the following:—

Patient has occasionally tried to get up of her own accord, but has generally been obliged to lie down again soon. Is now very feeble and pallid; there is scarcely any flush whatever; febrile symptoms much less distinct than formerly. Tongue almost perfectly natural, but retaining marks of former cracking. Has still no complaint of pain; chief cause of suffering is cough, which is fully more severe than ever. The dulness on percussion over the right front is diminished, being replaced in part by tympanitic or dull tympanitic resonance. Auscultatory signs, pretty distinctly those of progressive excavation of right front. Expectoration has been increased in quantity, and has become more and more purulent, but is still frothy, and not distinctly globular in character. Last night, for the first time, the sputa were tinged with a little blood. Has had very little diarrhœa.

She became gradually weaker, and died on the 10th of June.

The opinion entertained of the patient's case during her life was that she was suffering from acute phthisis, causing rapid breaking down of the substance of the right lung. The following were the appearances found on dissection:—

Surface of the body very pale; abdomen wrinkled.

On proceeding to remove the right lung, firm pleuritic adhesions were found over the upper two thirds of the organ; in separating these, a very superficial cavity in the anterior part of the lung was opened into. The upper and middle lobes of the right lung were found occupied by numerous communicating cavities exactly resembling such as result from the breaking down of tubercular matter. The walls of the cavities were irregular, coated with a soft yellowish matter, and in many places were crossed by fibrous cords, the remains of obliterated, or nearly obliterated, blood-vessels. In the pulmonary tissue between the cavities were numerous small, opaque, yellow masses. The lower lobe of the lung was in a condition of solid œdema, but contained no deposit. In removing the lung, its root was found to be much thickened by a deposit which surrounded and separated the normal structures. This infiltrated matter was of a pinkish white color, slightly translucent in appearance, of softish consistence, and presented all the physical characters of cancer; on scraping it, an abundant creamy juice, readily miscible with water, exuded. The growth was found to consist of degenerated bronchial glands, which started from the bifurcation of the trachea and followed the root of the right lung; it extended for about half an inch into the substance of the lung, and there ceased abruptly. The normal structures forming the root of the lung were much compressed; the bronchus was converted into little more than a slit, and the pulmonary artery and veins were much diminished in calibre.

The left lung was perfectly healthy, containing no trace of abnormal deposit: the bronchial glands at the root of this lung were also natural.

The liver was healthy. The kindeys were of normal size; in each were several small rounded masses, about the size of pepper-corns, of pinkish color and rather soft consistence. Other organs natural.

On *microscopic examination* of the creamy juice squeezed from the matter in the root of the right lung, it was found to contain an enormous number of naked nuclei, about $\frac{1}{2000}$ to $\frac{1}{1500}$ of an inch in diameter: there was a comparatively small number of rounded or oval cells, pale, but tolerably distinct, and each containing a nucleus similar to those floating loose; finally, there were a few compound granular corpuscles, and some granular matter. On the addition of acetic acid the cells became still paler; the nuclei, on the other hand, were rendered more distinct, but appeared somewhat diminished in size. On examining some of the soft yellow matter from the right lung, which to the naked eye bore a strong resemblance to tubercle, no distinct cells or nuclei could be seen; it appeared to consist entirely of broken down matter, mostly granular, but in some places having a tendency to obscure fibrillation, with some compound granular corpuscles. The structure of the nodules in the kidneys was found to be precisely similar to that of the degenerated bronchial glands in the root of the right lung.

It must be allowed that this case was in some respects a very deceptive one. Without speaking of the symptoms, the appearances presented on dissection were at first precisely such as are found in tubercular disorganization of the lung—adhesions of the pleura, a large cavity broken into during removal, the walls of which were lined with a soft cheesy matter and crossed by obliterated blood-vessels, seemed to leave little doubt as to the nature of the case. But when the root of the lung came under observation, its condition was evidently due to cancerous affection, beginning in the glands, and extending into the substance of the lung. Was this, then, a specimen of conjoined cancer and tubercle? I think not. The microscope showed distinctly the cancerous nature of the glandular disease, but threw no more than a negative light upon the condition of the lung. It must, however, be borne in mind that the histological characters of tubercular deposits are frequently ill-defined, particularly where considerable disintegration has taken place. Accordingly, as the absence of the so-called tubercle-corpuscles could not be considered sufficient evidence of the non-tubercular character of the deposit, its nature had to be decided upon from other considerations. And here a point of great importance was the absolute limitation of the deposit to a portion of one lung. We not uncommonly find one lung in an advanced state of tubercular disease, while the other is comparatively unaffected, but it would, so far as I know, be unprecedented, to have *absolute* freedom from disease in one lung, while the other was in the condition observed in this instance. Under these circumstances, and as there was no trace of tubercle either in the lymphatic glands or in the intestinal mucous membrane, I had no hesitation in coming to the conclusion that the affection of the lung was non-tubercular. If not tubercular, what then was it? The idea of cancer naturally suggests itself; but this too, I think, must be negatived. In a pretty extensive experience of cancer of the lung, I have never seen it produce destruction of the character met with in this case. Cancer is generally found in the lung in the condition of nodules or of infiltrated masses; in but few cases is softening found to have taken place, and when met with, it has been rather the result of a process of sloughing than of a comparatively slow and gradual disintegration; softening of cancer, when it does occur, takes place too rapidly to allow the neighboring bloodvessels to be sealed up. The microscopic appearances were also opposed to the identity of the deposits in the root of the lung and in its substance. Had the growth in the lung been cancerous we should undoubtedly have found cells, or more probably free nuclei, to testify to what had been the original character of the lesion.

On the whole, I came to the conclusion that the disease in the lung was the result of a low form of inflammation, determining the presence of a fibrinous material which subsequently underwent disintegration. It is now generally recognized by pathologists that all cases of so-called pulmonary phthisis do not result from tubercle, but that some are occasioned by a low grade of the inflammatory process. I believe that this was the case here, and that the pressure upon the important parts in the root of the lung was the determining cause of the lesion. I have more than once seen cases where the pressure of an aneurism on the root of a lung has been connected with very similar appearances, and where the entire absence of tubercle from other organs rendered it highly improbable that the deposit was specific.—*Edinburgh Med. Journal.*

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

Nov. 23d.—*Gun-shot Injury of the Head, involving the Brain.*—Dr. Jeffries Wyman showed the specimen, and read the following account of the case, which was communicated by Dr. Francis H. Brown, of Cambridge.

G. G., 16th Mass. Vols., was wounded Aug. 30th, at Bull Run, and admitted to the Judiciary Square Hospital, Washington, during the night following. On examination, he was found to have a stellate wound immediately over the centre of and half an inch above the right supra-orbital ridge; behind this, a perforation of the frontal bone, with cleanly cut edges. By such amount of probing as seemed justifiable, no ball could be felt.

On entrance, he was perfectly conscious; his conversation and motions did not differ from those of the patients around him. He considered himself not seriously injured, and insisted that no ball had entered his head. His appetite was good, and all the functions were carried on normally. Got a cold-water dressing. For two days he was about the wards a part of the time, and was able to help himself; had no pain; the most of the time, however, he was in bed, resting on his back.

Sept. 3d.—Was found in the morning in a comatose condition, lying on his back—evidently without suffering; in no way sensible to stimuli; pupils natural; respiration normal. No apparent change in wound.

4th.—Coma more marked; otherwise as yesterday. Still on his back.

5th.—Died at 6.15, A.M. Comatose to the last.

The autopsy was made, and the specimen prepared, by B. G. Wilder, Medical Cadet U.S.A. The ball entered the anterior lobe of the brain at a point corresponding to the perforation of the skull, carrying with it fragments of the frontal bone, and traversed the substance of the brain obliquely to the anterior cornu; the tract of the ball then changed its direction, and passed, parallel to the median line, within the cavity and along the whole length of the lateral ventricle; at the posterior cornu the ball passed out of the ventricle, and, on removing the brain from the skull, dropped from a small cavity in the posterior surface of the hemisphere. At the point of entrance was an abscess the size of a walnut. The parietes of the ventricle were considerably abraded, and these, and the substance of the brain along the tract of the ball, were infiltrated with pus. A small amount of pus was found in the left ventricle.

The position of the ball at any one time could not, of course, be determined; but the appearance of the brain, joined with the history of the case, would indicate that the ball, at the time of the wound, entered the brain as far as the anterior cornu, the bits of bone and *débris* causing the abscess near the surface; that then, as the patient was lying on his back, the ball yielded to gravity, sloughed through the parietes of the ventricle, passed along its cavity, again sloughed through the parietes, and was found as before reported.

Nov. 23d.—*Perforating Ulcer of the Stomach.*—Dr. F. E. Oliver reported the following case.

"Mary B., aged 48, single, housekeeper, was seized, while at the breakfast table, on the morning of Nov. 10th, with severe pain in the precordial region, which rapidly increased. She was immediately seen by Dr. Cullis, who administered some preparation of camphor and digitalis, and applied hot fomentations over the region of the heart; the latter not being well borne, seeming to aggravate the pain, cold applications were substituted, from which, with the remedies administered, the patient seemed to obtain slight temporary relief.

"At 12 o'clock I saw her, when Dr. C. very courteously gave the patient into my charge. She was at this time in a sitting posture, with the head bent over and resting on a table, groaning with pain, which she referred to the region of the heart, and which extended down the left arm. Complexion was pallid. Pulse 76. Respiration somewhat labored. The bowels had been moved slightly in the morning, but the patient had been somewhat constipated for some days. There was some thirst. On examination of the heart, a slight but distinct murmur was audible, accompanying the first sound, and an occasional intermission was noticed in the pulse.

"Little could be gained as to the patient's previous history, excepting that her general health had been for the most part good. From the fact, however, that she had occasionally been known to take capsicum, it may be supposed that she at times experienced some unpleasant feeling at the stomach. She stated that she had once before had an attack similar to this, and that her mother had died of disease of the heart. From all the symptoms and circumstances attendant upon the case, it was at first inferred that it might be some neuralgic affection of the heart; but as the pain soon after rapidly extended downward, and became general over the region of the abdomen, accompanied with exquisite tenderness, and the pulse was now observed to increase in frequency, it became evident that the trouble was of a far different nature. She was unable to bear the slightest pressure upon the abdominal walls, and fluids taken to quench her constant thirst were immediately rejected; much wind was also constantly ejected from the stomach. Peritonitis, from some cause, was the inevitable diagnosis.

"From the first, opiates were given, and warm fomentations applied over the abdomen, which seemed to give partial relief, but she was unable to lie down at any time. Dr. Coale saw her, in consultation, at 5 o'clock. At this time the pulse was 126, and there was tympanites. At 7, the pulse was almost imperceptible, face bathed in perspiration, breathing rapid, and the patient near her end. She at this time made several ineffectual attempts to evacuate the bowels. She died at 10½, P.M., fourteen hours after seizure, her mind remaining perfectly clear until twenty minutes before death.

"From the suddenness of the attack, perforation of some portion of the intestinal tract suggested itself as the probable cause of the foregoing symptoms.

"A *post-mortem* examination was made by Dr. Coale and Mr. Marcy, Nov. 12, at 9½, A.M., thirty-five hours after death. The only marked appearance of the body exteriorly was fulness of the abdominal walls. On opening this cavity, the small intestines were noticed to be pretty generally injected, and floating in about three and a half pints of what appeared like purulent serum. On following up the intestinal tube, no lesion was found until the stomach was reached, where a circular opening discovered itself in its anterior walls, and about midway between the two extremities of this organ, from which the same purulent-looking matter as that before mentioned was still issuing. The peritoneal membrane of the diaphragm was also much inflamed, which might probably account for the character and seat of the pain in the early stage of the attack. The pericardium contained from one half to an ounce of bloody serum. The heart was enlarged and softened, the right auricle quite thin, and the wall of the left ventricle thickened. The mitral valve presented a slight thickening. The lungs were sound."

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, DECEMBER 25, 1862.

We print below Dr. Letterman's Circular to the different army corps, containing the new medical supply table. This is regarded by experienced army surgeons as a great improvement on the old table, which was much too cumbrous for an active campaign. Heretofore large quantities of medical stores have been necessarily left behind and sacrificed for want of means of transportation. The new medicine chests, as well as the new hospital knapsacks, are said to be a great improvement on those in use in our army up to the present time. As we have not seen either of these or read any detailed description of them, we are unable to say whether they compare favorably with those used by other armies. The French ambulance knapsack, described in our last, is so admirable a contrivance that we hope it may have been copied in the one adopted for our army.

CIRCULAR.] { MEDICAL DIRECTOR'S OFFICE, ARMY OF THE POTOMAC, OCTOBER 4, 1862.

MEDICAL SUPPLY TABLE FOR THE ARMY OF THE POTOMAC.

FOR FIELD SERVICE.

Experience has shown that the Medical Supply authorized by the Regulations for a Regiment for three months is too cumbrous for active operations, instances being frequent where the whole supply has been left on the roadside.

Hereafter, in the Army of the Potomac, the following supplies will be allowed to a Brigade for one month, *for active field service*, viz. :—

One Hospital Wagon, filled.

One Medicine Chest for each Regiment, filled.

One Hospital Knapsack for each Regimental Medical Officer, filled.

The supplies in the list marked (*a*)[*] to be transported in a four-horse wagon.

The Surgeon in charge of each Brigade will require and receipt for all these supplies, including those in the Hospital Wagon, and will issue to the senior Surgeon of each Regiment the Medicine Chests and Knapsacks, taking receipts

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[*] Except the following articles, which will be carried in the ambulances, in the box under the driver's seat.

ARTICLES.	IN EACH AMBULANCE.		ARTICLES.	IN EACH AMBULANCE.	
Beef stock, 2-lb. cans	No.	3	Spoons, table	No.	6
Buckets, leather	"	1	Tumblers, tin	"	6
Kettle, camp	"	1	Hard bread	lbs.	10
Lantern and candle	"	1			

therefor. The Hospital Wagon, with its horses, harness, &c., will be receipted for by the Ambulance Quartermaster.

The Surgeon in charge of the Brigade will issue to the Medical officers of the Regiments such of these supplies as may be required for their commands, informally, taking no receipts, demanding no requisitions, but accounting for the issues as expended.

The Surgeons in charge of Brigades will at once make out requisitions in accordance with these instructions, and transmit them, approved by the Medical Directors of Corps, to the Medical Purveyor of this Army. These supplies being deemed sufficient for one month only, or for an emergency, Medical Directors of Corps will see that they are always on hand, timely requisitions being made for that purpose.

ARTICLES.	IN HOSPITAL WAGON.	(*a*) IN FOUR-HORSE WAGON.
Acaciæ pulvis	lb. ½	
Acid sulpuricum arom.	“ ½	
“ tannic.	oz. 1	
Æther sulphuric.	lbs. 2	
“ spirit. comp.	“ 1	lb. 1
“ “ nitros.	“ 2	“ 2
Alcohol	pts. 12	
Alumen	lb. ½	
Ammoniæ carbonas	“ ½	
“ liquor	“ 2	
“ spirit aromat.	“ ¼	lbs. 4
Antimon. et potass. tartras	oz. 1	
Argenti nitras	“ 1	
“ “ fusus	“ 1	
Brominium (Bibron's antid.)	bot. 1	
Camphora	lb. ½	
Cantharidis ceratum	“ ½	
Cera alba	“ ¼	
Ceratum simplex	“ 3	lbs. 12
“ resinæ	“ 1	
Cinchoniæ sulphas	oz. 24	
Chloroformum	lbs. 2	“ 12
Collodium	oz. 1	
Copaiba	lbs. 2	
Creosotum	oz. 4	
Cupri sulphas	“ 2	
Ext. aconiti rad. fluidum	“ 4	
“ belladonnæ	“ 1	
“ colchici rad. fluidum	“ 4	
“ colocynthidis comp.	“ 8	
“ cinchonæ fluidum	lb. 1	
“ ipecacuanhæ fluidum	“ ½	
“ zingiberis fluidum	“ ½	
Ferri chloridi tinctura	“ ½	lb. 1
“ et quiniæ citras	oz. 1	
“ persulphatis liquor	“ 4	
“ “ pulvis	“ 1	“ 1
Glycerina	lb. ½	
Hydrargyri chlorid. mit.	“ ½	
“ pilulæ	“ ½	“ 1
“ unguentum	“ 1	
“ “ nitrat.	“ ¼	
Iodinum		oz. 8
Ipecacuanhæ et opii pulvis	lb. ¼	lb. 2
“ pulvis		“ 1
Lini pulvis	lbs. 8	
Magnesiæ sulphas	“ 8	“ 20
Morphiæ	oz. ¼	oz. 4
Oleum olivæ	qt. 2	qt. 4
“ ricini	“ 4	“ 4
“ menthæ piperit.		oz. 2
“ terebinthinæ	qt. 1	
“ tiglii	oz. 1	

ARTICLES.	IN HOSPITAL WAGON.	(*a*) IN FOUR-HORSE WAGON.
Opii pulvis	lb. ½	lbs. 2
“ pilulæ	doz. 8	doz. 24
“ tinctura	lb. 1	
“ “ camphora	“ 1	
Pilulæ cathart. comp.	doz. 8	doz. 24
“ camphor (2 gr.) and opium (1 gr.)	“ 8	
Pilulæ ipecac. (½ gr.); ext. col. comp. (3 gr.)	“ 8	
Plumbi acetas	lb. ½	lbs. 2
Potassæ bicarbonas	“ ½	“ 2
“ chloras	“ ½	“ 2
Potassii iodidum	“ ½	“ 2
Quiniæ sulph.	oz. 12	oz. 48
“ “ in pills, 3 gr. ea.	doz. 8	doz. 24
Rhei pulvis		lb. 1
Sapo	lbs. 8	“ 4
Scillæ syrupus	“ 4	
Sinapis nigræ pul.	“ 6	“ 6
Sodæ chlorinat. liq.	bot. 1	bot. 4
“ bicarbonas	lb. ½	lb. 4
“ et potassæ tart.	“ 1	
Spirit. frumenti (whiskey)	bot. 24	bot. 24
“ vini gallici	“ 6	“ 24
Zinci chloridi liquor	lb. 1	
“ sulphas	oz. 1	lb. 1
HOSPITAL STORES.		
Arrow root	lbs. 10	
Beef stock, 2-lb cans		doz. 4
Candles, sperm	lbs. 2	lbs. 2
Farina	“ 10	
Nutmegs	oz. 4	
Sugar, white	lbs. 12	
Tea, black	“ 4	
INSTRUMENTS.		
Buck's spongeholder	No. 1	
Cupping tins	“ 12	
Lancets, thumb	“ 2	
Pocket case	“ 1	
Probangs	“ 12	
Scarificators	“ 2	
Scissors	“ 2	
Stethoscopes	“ 1	
Syringes, self-injecting	“ 1	
“ enema 16-oz.)		No. 4
“ hard rubber (4-oz.)	No. 1	
“ penis, glass	“ 6	
“ “ rubber		No. 8
Teeth extracting	Set 1	

ARTICLES.	IN HOSPITAL WAGON.	(a) IN FOUR-HORSE WAGON.
Tongue depressor (hinged)	No. 1	
Tourniquets, field	" 8	No. 8
" screw	" 2	" 4
Trusses	" 4	" 16
DRESSINGS, &c.		
Adhesive plaster	yds. 5	yds.20
Binder's board, 2½ by 12 in.	pcs. 8	pcs. 48
" " 4 by 17 "	" 8	" 48
Cotton bats	bats, 2	bats, 4
" wadding	sheet 1	
Flannel, red	yds. 4	
Gutta percha cloth	" 2	
Isinglass plaster	" 5	yds.20
Lint, patent	lbs. 4	lbs. 24
" scraped	" 2	
Muslin	yds.10	yds.20
Needles, 25; cotton, 1 spool; thimble, 1	case, 1	
Oiled muslin	yds.2½	
" silk	" 2½	" 20
Pencils, hair	No. 12	
Plaster of Paris, ground		lbs 50
Pins	paps. 2	paps. 4
Roller bandages, assorted	doz. 16	dz. 100
Silk, green (for shades)	yds. 1	
" surgeon's	oz. ¼	oz. 4
Splints	set, 1	sets, 4
" Smith's anterior		No. 20
Sponge, fine	lb. ½	lb. 1
Suspensory bandages	No. 8	No. 16
Tape	pcs. 4	
Thread, linen		lb. 1
Tow	lbs. 10	
Towels	No. 12	No. 40
Twine	lb. ½	
BOOKS, &c.		
United States Dispensatory	copy,1	
Surgery, Erichsen's	" 1	
" Smith's Handbook	" 1	
" Sargent's Minor	" 1	
Gunshot Wounds—Longmore	" 1	
Blank books	" 2	cop's 8
" " quarto	" 1	
Case book	" 1	
Register of patients	" 1	
Order and Letter book	" 1	

ARTICLES.	IN HOSPITAL WAGON.	(a) IN FOUR-HORSE WAGON.
Requisitions, returns and reports	copy,1	
Ink (2-oz. bottles)	No. 2	No. 8
Inkstand, travelling	" 1	
Envelopes	" 100	" 100
Paper, wrapping, white and blue	qrs. 2	qrs. 2
Paper, writing	" 4	" 8
Pens, steel, with holders	doz. 1	doz. 4
Pencils, lead	No. 6	
Portfolio	" 1	
Sealing wax	stick,1	
Mucilage	bot. 1	
BEDDING, &c.		
Blankets	No. 20	No. 40
Gutta percha bed covers	" 8	
FURNITURE, &c.		
Basins, tin (small)	No. 2	No. 8
" wash, hand	" 3	" 8
Bed pans, delf, shovel shape	" 1	
" metal		" 4
Buckets, leather	No. 2	" 12
Corks, assorted	doz. 8	doz. 8
Corkscrew	No. 1	No. 4
Funnel, ½-pint (glass)	" 1	
Grater, nutmeg	" 1	
Hatchet	" 1	
Hone	" 1	
Kettles, camp (2-galls.)		No. 12
Lanterns, glass	No. 3	No. 12
Measure, graduated, 2-oz	" 1	
" " minim	" 1	
Medicine measuring glasses	" 2	
Mill, coffee	" 1	
Mortar and pestle	" 1	
Pill boxes	paps. 2	
" tiles	" 1	
Razor and strop (in case)	No. 1	
Scales and weights	box, 1	
" " large	No. 1	
Sheepskins, dressed	" 1	
Spoons, table		doz. 6
Spatulas, 3 and 6 in.	No. 2	
Tumblers, tin		No. 6
Urinals, glass	No. 2	" 4
Vials, assorted	doz. 2	

The ambulance boxes will be kept locked. The surgeon in charge of the Brigade will keep the keys, and, by weekly inspections, ascertain that each ambulance has it's full supply.

Whenever practicable, one ambulance will follow in the rear of the Regiment on the march, to transport the Medicine Chest, Knapsacks, and any urgent cases of sickness or wounds.

When the ambulance cannot accompany the Regiment, one Knapsack will be carried by an orderly, with the command, and the Medicine Chest and remaining Knapsacks will be placed with the Hospital Tent and other Hospital Furniture, in the wagon allowed each Regiment for that purpose.

The hard bread can always be obtained from the savings of the Regimental Hospital.

JONA. LETTERMAN, *Med. Director.*

EXAMINATION OF RECRUITS.—We print the following letter because we think too much can hardly be said on the subject, until these outrages on common honesty, this barefaced violation of every sentiment of professional honor by men claiming to be physicians, are put an end to. It is hard indeed that it is possible for any man thus to impose on the liberality of the government, and we think an act should be passed, depriving all enlisted men, who on a second examination are manifestly unfit for service, of all right to any subsequent pay. This might be a hardship in some instances, but there is too much of this trading in bodily infirmities by men who know at the time they enter the service that they are entirely unfit for military duty. As for the physicians who furnish such recruits with certificates of fitness, they should be known and held up for the contempt of the community; in no other way can they be adequately punished. If our correspondent will furnish us with the needed evidence, we will publish the names of these unworthy members of the profession.

MR. EDITOR,—I am glad to see occasional mention in the JOURNAL of the negligence or culpability—call it what you will—of our surgeons in the examination of recruits. Let me give you a few data from the camp under my care. Two men were enlisted one week ago to-day—on Tuesday, one came to the hospital showing cicatrices almost *covering* the right arm, the result of old disease, the limb much atrophied and weakened. The next day the other came, complaining of rheumatism, which had long been chronic, with legs œdematous and distorted. Within a week there have come under my notice—recent recruits—a man with varicose ulcer of three years' standing; one with old fracture at the ankle joint, with atrophy and stiffness of the leg; one with only *six* teeth in his head, and these in such a condition that I removed them *all* at one sitting; one with advanced phthisis; one with senile bronchitis and chronic rheumatism, and 58 years of age; and of all these, the only ones who are not recent recruits have spent most of their term of service in the hospital. Should this be? Do our surgeons consider that they sign for each man (or should do so) a certificate that they have "on honor carefully examined Blank and find him fitted to discharge the duties of a soldier"? Do they think it *honorable,* to say the least, to send men into service who will in the first place receive twenty-five dollars as bounty on enlisting, and seventy-five at the end of the war—probably a bounty from a city or town—then thirteen dollars a month while in service, and aid to families—and after all this, to be doing *nothing* in return; but, instead, to be lying in a hospital, even before they leave the State, at an additional expense to Government of perhaps eight or ten dollars a month? What does it mean, when we have express orders to follow Tripler in our examinations—and he directs to examine the recruit *stripped*—that some men say they were not even *seen* by the surgeon, and a *great many* that they were not required to remove their clothes?

In my enumeration above, I did not by any means exhaust my list. I neglected entirely to mention the very numerous cases of hernia, varix, constitutional syphilis, and other defects in men who have been examined (?) by surgeons and pronounced fit for service.

I am somewhat amused at the order of the Surgeon-General printed in this week's JOURNAL. His elaborate and ideal diet table *cannot* be carried out, I am quite sure. The order, too, regarding cubic space is all right in *theory*—but what is to be done? You say, too truly, "necessity knows no law." Truly yours,

December 19*th*, 1862. F. H. B.

Mr. Editor.—Recollecting the impression that the first sight of an "ambulance" produced upon me, I was not surprised to find in your pages the anxious inquiry made by one of your friends for a substitute. Allow me to offer him, through you, the following suggestions. Any heavy country wagon will answer—the cotton wagons of the South being the kind I have seen used, but the large "U.S.A." wagon is perhaps even better. Draw a piece of tent cloth over the standards or sides of the wagon, not too tightly, and fasten it firmly. You will find this a cool and elastic resting-place for a wounded man, free, or nearly so, from that horrid ambulating motion which is quite disagreeable enough to give a name for the "machine" which produces it. An Ex-Southern Apothecary.

Boston, December 14*th*, 1862.

P. S.—If any of the government officers having control of the matter are as anxious for a "substitute" as your friend appears to be, they can secure some assistance from one who has had experience in the suffering occasioned by riding when unable to help himself, on application to W. H. B.

Our correspondent evidently refers to the two-wheeled ambulance, which is universally acknowledged to be the perfection of abominations. The wagon which he describes as a substitute for it answers very well to the description of the four-wheeled ambulance, used to a considerable extent in our army. The latter is vastly superior to the former, as it preserves a more uniform level, the shock caused by inequalities in the road is much less, as the weight is distributed over a larger number of bearing points, and there is none of the up-and-down motion which is caused by the movements of the horse in the former, and which must be agonizing indeed to a wounded man. We doubt if any very great improvement can be made in the light four-wheeled ambulances now in use, so far as making them easier for the patients is concerned. At best they must be beds of torture to those doomed to a long journey in them over the rough roads of the South. Indeed, in our opinion, the greater part of the complaint against ambulances in general should more properly be made against the roads over which they must be driven. The vehicles must be made strong, with springs of considerable firmness, to resist the excessive jolting, which the want of a smooth piece of road anywhere of more than a few feet in length, at the present season, makes continuous and inevitable.

Duration of Life in Sweden.—From official details just published, it appears that the average duration of life in Sweden during the eighteenth century was thirty-four years for men and thirty-seven for women; it is now forty-one and forty-six respectively. This is not owing to any great tendency to longevity, but rather to a diminution of deaths in the earlier stages of life, since only three-twentieths of the number of infants born die in the first year of their existence. Among the causes which have tended to increase the average of life in Sweden vaccination holds the first rank. A hundred years ago one seventh of the deaths were attributable to smallpox, while now there is scarcely one death in a thousand owing to that disease.—*London Lancet.*

Amputations after the Battle of Corinth.—Dr. E. Andrews, Surgeon of the 1st Illinois Light Artillery, writes as follows to the *Chicago Medical Examiner :—*

"The most recent surgical information which I can present is that of the battle of Corinth. Orders were there given to amputate no thigh above the middle, without a full council, and then only in desperate emergency. This order was given in consequence of the horrible mortality of high amputations. The result was strikingly, but perhaps fallaciously, brilliant. Of all thighs amputated below, or at the middle, four-fifths were alive *and doing finely*, on the tenth day, when last heard from. This was among the Union troops. Among the wounded Secesh who fell into our hands the same rule was adopted, but the result was exactly reversed. *Four-fifths of similar cases among them died before the tenth day.* This difference in the two classes is due, I believe, to two causes : 1st. The Confederate troops were nearly in a state of starvation, many of them having only roasted green corn in their haversacks. 2d. It is probable that many of the most favorable cases for the operation contrived to crawl away and get carried off on the retreat. There may also be a natural difference in their power of endurance, for it is noticeable through this whole region that the inhabitants have a thin, sallow appearance, which contrasts strongly with the ruddy robustness of our soldiers. In most parts of this region, a ruddy native is a wonder, and a fat one could not be found at all."

Dr. G. A. Dayton reports, in the *American Medical Times*, two cases of tænia expelled by the use of pumpkin seeds. Dr. D. remarks, in regard to this remedy, that to make it almost a specific, " the seeds should be thoroughly bruised, so that the particles can come in contact with the head of the worm ; also that fasting is absolutely necessary to enable the remedy to accomplish its work."

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, December 20th, 1862.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - -	25	38	63
Ave. mortality of corresponding weeks for ten years, 1851—1861,	38.8	38.0	76.8
Average corrected to increased population - - - -	00	00	84.68
Death of persons above 90 - - - - - - -	00	1	1

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
9	5	3	4	0	0	1	0

Erratum.—On page 399, line 2, for " Stratham " read *Statham.*

Received,—The Illustrated Physiological and Phrenological Almanac for 1863. Fowler & Wells, Publishers, New York.—On Medical Provision for Railroads, &c. Two Papers, by Edward S. F. Arnold, M.D., New York.

Deaths in Boston for the week ending Saturday noon, Dec. 20th, 63. Males, 25—Females, 38.—Anæmia, 1—disease of the bowels, 1—congestion of the brain, 3—inflammation of the brain, 2—bronchitis, 5—burns, 1—cancer of the breast, 1—consumption, 9—convulsions, 1—croup, 5—dropsy of the brain, 3—drowned, 1—scarlet fever, 2—typhoid fever, 3—gastritis, 1—disease of the heart, 1—infantile disease, 6—intemperance, 1—disease of the kidneys, 2—congestion of the lungs, 1—inflammation of the lungs, 4—marasmus, 2—old age, 1—paralysis, 1—premature birth, 1—puerperal disease, 2—teething, 1—unknown, 2.

Under 5 years of age, 32—between 5 and 20 years, 2—between 20 and 40 years, 19—between 40 and 60 years, 5—above 60 years, 5. Born in the United States, 51—Ireland, 7—other places, 5.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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CASE OF GLAUCOMA; RELIEVED BY IRIDECTOMY.

[Read before the Boston Society for Medical Improvement, December 22d, 1862, and communicated for the Boston Medical and Surgical Journal.]

By Henry W. Williams, M.D.

A short time since, I made to this Society a brief report of a case of acute glaucoma, in which complete restoration of vision was obtained by the performance of iridectomy. The disease being comparatively rare, but, when it occurs, so very rapid in its course, and so hopelessly destructive if not at once arrested by surgical interference, I feel it important to call attention to another instance where the results of the operation, in a most violent attack, were equally satisfactory.

A lady beyond the middle period of life had, during the last summer, been subjected to harassing fatigues and emotions, arising from the sudden death of friends, and her health, usually exceedingly good, had perhaps suffered, in some degree, from these depressing causes.

About the middle of October, while walking, she was suddenly attacked with severe pain, accompanied by almost total loss of vision, in the right eye. The pain was, however, thought to be neuralgic, and the loss of sight was attributed to the same cause, the patient supposing that restoration of vision would ensue upon the subsidence of the pain; but, as the symptoms persisted, I was asked to see her on the 18th of October, four days after their invasion.

The circum-corneal zone was much injected, with a few enlarged vessels running tortuously upon the globe and penetrating the sclerotica. The pupil was considerably dilated; appearing as if forced open by pressure of the lens forward against the iris. The field of the pupil had a turbid aspect. The iris was apparently little changed in color or condition. The globe was evidently harder than natural, when pressure was made upon it through the lid. Pain continued to be felt in and around the eye. The patient could only perceive the largest objects, and those indistinctly.

The symptoms of glaucoma being unmistakable, I advised that an operation should be at once submitted to.

Ether was administered, and, with the assistance of Dr. Hay, I opened the cornea at its upper edge and removed a segment of the iris.

The operation was followed by immediate relief of pain, and the amelioration of the other symptoms, though somewhat slow, was uninterrupted in its progress.

On testing her sight, on the 18th of December, two months after the iridectomy, I found her able to read a fine newspaper print, without glasses, with this eye; though she had worn glasses for many years (having been compelled to have recourse to them at the age of 35), and still required them for the other eye.

The segment of iris having been taken from its upper portion, all deformity, and all dazzling of the eye from excess of light, are avoided; the artificial enlargement of the pupil being covered by the upper lid, which is an immense advantage to the patient.

I take the opportunity to state, that the patient referred to at the beginning of this communication, continues to enjoy perfect vision—eight months having elapsed since the operation was performed.

THE RECENT OPHTHALMOLOGICAL CONGRESS IN PARIS.

[Communicated for the Boston Medical and Surgical Journal.]

Translated from the German by Hasket Derby, M.D.

[The following brief account of the recent Ophthalmological Congress in Paris, written by the distinguished gentleman selected to preside over its deliberations, may not be without interest to the members of the profession in general.]

Paris, October.

You remind me of my promise to give you some account of the Ophthalmological Congress which held its sessions in Paris from Sept. 30 to Oct. 3. It was certainly rather incautious of me to enter into such an engagement, but I will endeavor to fulfil it as briefly as possible. I cannot dwell on scientific details, inasmuch as the columns of the —— ——, so much in demand for other purposes, would hardly contain even a summary of the doings of the Congress. I must accordingly content myself with giving you, as far as possible, a glance at the general physiognomy of the assemblage.

We numbered one hundred and fifty—all the noted oculists of Europe and even of the Western Continent were present, and most governments had deputed special representatives. The delegation from your own country was especially notable. By the side of Graefe—the grand master of science—shone Ruete and Coccius from Leipsic, Arlt and Gulz from Vienna, and many others whose names do not occur to me at this moment, albeit all deservedly renowned. Holland had sent Donders, the most renowned teacher of her universities, Denmark Melchiors, the United States Williams,[*] Italy Borelli, Greece Anagnostakis, Egypt Abbate, Belgium Van Roosbroeck, Warlomont and Haireou, Portugal Marquez, &c. I abbreviate, for he who enumerates the nations can repeat the names even only of the more prominent persons who were here present. By the side of these men sat Sichel, Desmarres, Guérin, and all the leading French ophthalmologists. Our only chagrin was caused by not seeing among us a single one of the great surgeons of Paris, but their absence is to be explained by the horror with which these gentlemen regard all that they are pleased to bring under the head of specialty; as though specialty were not the sole means of progress in the field of surgery; as though it were not to this that—in these latter days—science is indebted for so many acquisitions, humanity for so many benefits.

I had the honor to be called upon to preside over this august assemblage, the most learned I had ever encountered. Donders and Desmarres were elected vice presidents, Giraud-Teulon and Wecker secretaries.

Each of the four sessions of the Congress lasted over six hours. Numerous communications, mostly of deep interest, were during this time interchanged and debated with animation. But I assert, without hesitation, that your illustrious Graefe and his school, and Professor Donders of Utrecht, bore away all the honors. These are great geniuses, who have outstripped their contemporaries as well as their predecessors. The communications of Graefe and Donders gave rise, without exaggeration, to positive enthusiasm.

I have been present at many congresses, never at such a one. One may think and say as much evil of such meetings as one will, but all those who were fortunate enough to participate in the Paris Congress will unhesitatingly agree that as a means of spreading abroad the results of scientific experience, such a method is unsurpassed. The system of congresses has its own special object, and more should not be expected from it than it is capable of performing. It is true that new ideas are not created, but they are spread in the quickest and most admirable manner. Who will undertake to dispute the significance and worth of this service?

Like its predecessors, the Congress of Ophthalmology held a brilliant banquet at the close of its labors. Of the numerous toasts proposed (the usual formal ones having been dispensed with), I will only mention those in honor of Graefe and Donders, the two heroes of the four days of the Congress.

An interesting episode occurred during the consideration of the business protocol which the Paris Committee had prepared. After a long debate, the Congress ordered the striking out of that paragraph which made it the duty of the president, wherever the place of meeting should be, "to obtain the necessary sanction of the authorities." Each president is to act in such cases according to the obligations imposed by the laws of his own land; but an international code should contain no clause which must wound the feelings of a nation that is deprived of the right of free assemblage. For, be it well understood, the Congress of Paris was only the first of a series of similar re-unions which shall take place successively in different European cities; the code, therefore, could not be constructed entirely on a French basis.

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[*] Probably Dr. E. Williams, of Cincinnati.

The next Congress is to meet in four years at Vienna. The present one has been so fruitful in results that it is not to be doubted that all who have participated in it will eagerly respond to the summons which will be addressed to them in 1866.

Make any use you please of these few lines, which I now conclude. Allow me only to add that the report of the labors of the Paris Congress, shortly to be published, will form one of the most interesting and instructive volumes of our epoch. DR. VLEMINCKX.

CASE OF PITYRIASIS NIGRA.

BY P. J. FARNSWORTH, M.D., OF LYONS, IOWA.

[Communicated for the Boston Medical and Surgical Journal.]

THE following case, occurring in my practice, seems worth reporting on account of its novelty. Mrs. C., aged about 50, of very fair complexion, enjoying fair health, except a little torpidity of the liver, consulted me in regard to a small tumor in the vicinity of the thyroid gland. It was not troublesome, but affected somewhat her good looks.

Painted it over with ordinary tincture of iodine, giving directions to have it applied occasionally. After the second application, a slight eruption took place, followed by desquamation over the whole neck. Concluded it was from the iodine, and directed it to be discontinued, and some soothing lotion to be applied. On the third day the eruption had spread to the face; on the fourth day it covered the face, and was of a dark mahogany color. Every portion exposed to the light, from the roots of the hair to where the dress covered the chest, was of the same color. The mental distress was much greater than that of the body, as may well be imagined; a fair complexion being thus suddenly transformed to that of a blackmoor. Her friends could scarcely express their sympathy, her appearance was so ludicrous. And they certainly were excusable, for there were the voice and features of Mrs. C., but the countenance was that of a negro. After the fifth day there was much itching and heat in the morning, followed by desquamation in large scales, leaving the skin shining and of a dark color; towards night, the cuticle seemed to be re-formed and to intensify the color. It did not manifest any disposition to spread beyond its original limits. It was in the month of December; there had been no exposure to the sun; there was no disturbance of the uterine functions, as the catamenial period was passed; there was some gastric irritation as evinced by occasional sick headaches, and a habit of costiveness.

I diagnosticated the case to be pityriasis nigra, of Willan, except that instead of the furfuraceous scales falling off, and leaving "the newly-formed membrane of the normal tint," the same dark color remained, to go through the same process the next day.

The prognosis was doubtful, but to relieve her distress of mind I hazarded the assurance that it would go off in a few days. Gave a blue pill at night, to be carried off by a saline cathartic in the morning, and applied a wash composed of plumbi acet. gr. x., chloroform gtt. xxx., glycerine ℥ i. The wash seemed to relieve the painful symptoms. The desquamation took place for three or four days, in no slight degree, when it gradually grew less, and the skin resumed its natural color. At the end of ten days, to the great relief of Mrs. C., her friends, and the doctor, she was restored to society a fair-complexioned lady, with no blemish, except a slight bronchocele.

December 20th, 1862.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

Nov. 24th.—*Fatty Concretions discharged from the Bowels after taking a large quantity of Sweet Oil.*—Dr. JACKSON showed the specimens, which he had received from Dr. Wm. F. Perry, of Mansfield. The patient, a married woman, had had, for several weeks, symptoms of affection of the liver and alimentary canal. On the 17th inst., she took one gill of the oil, and on the following day these masses passed with a fæcal discharge. They are eight or ten in number, of uniform size and appearance, of a regular and somewhat oval form, about one third of an inch in length, light colored, and of more than a soft solid consistence. The following is the result of Dr. John Bacon's examination:—

"The concretions have a feeble acid reaction. When heated they melt readily, and burn with a bright flame, leaving a slight alkaline residue. In alcohol they dissolve almost completely, and the solution leaves, on evaporation, a mixture of granular, solid fat, with some oil. The concretions are undoubtedly formed from the olive oil taken by the patient."

Dr. J. referred to a few other similar cases that had occurred here, and questioned whether anything of the kind had been described.

Dec. 8th.—*Diphtheria.*—Dr. JACKSON showed the affected parts from a patient who had died under the care of Dr. Charles Jordan, of South Reading, and reported the following facts, which he obtained from Mr. John Dole, a student of Dr. J. The patient was a lawyer by profession, 41 years of age, somewhat plethoric and always healthy. On the 15th of November, Dr. J. saw him, and found him sitting up, dressed, and complaining of sore throat. Sick since Monday, but attended to his business till Thursday. Tonsils much swollen and inflamed, with inability to swallow; aphonia; dyspnœa since the day before; countenance natural; pulse 100. An astringent gargle was ordered, and poultices to the neck. On Sunday morning he was about the same; but, being unable to sleep, an opiate was ordered. In the evening. Dr. J. was sent for, and found him expectorating a large amount of viscid and puriform mucus. The throat was about the same, but the patient complained of there being something behind the tonsils that he wished to get rid of. On Monday morning, the throat was less swollen, and he could swallow liquids; patient walking about the room; had thrown off, before Dr. J.'s visit, two pieces of thin membrane about half an inch in diameter. Stimulants were ordered, with nourishing food. In the afternoon, the tonsils were very much less inflamed, and no lymph could be seen in the pharynx. At 11, P.M., Dr. J. was called, and found the breathing stertorous, the countenance suffused, and the pulse 120. Hot fomentations were applied to the throat and internal stimulants given, and Dr. J. remained with the patient until 4 o'clock the next morning, the patient continuing about the same. An hour or more after he left him, he threw off a large, long and partially tubular membrane. At 7, A.M., on Tuesday, the breathing was easier; tendency to doze; pulse weak and rapid. Ordered stimulants to be given freely. At 11, A.M., a consultation was held; the patient having previously thrown off one piece of membrane 1 inch by $\frac{3}{4}$ inch, and another 2 inches by $\frac{3}{8}$ inch. Through the day he continued to sink, and at 5, P.M. he died; the aphonia having continued and the dyspnœa increasing from the time that Dr. J. first saw him.

An examination of the body was at first objected to, but was subsequently made in the receiving-tomb on the 5th instant; the parts being in good condition and not frozen. These were removed and sent to Dr. J., who showed them to the Society. In the pharynx, there was a thin layer of lymph of some extent; and a pretty thick layer lined the under surface of the epiglottis, the larynx and trachea (in both of which it was adherent), primary, most of the secondary, and many of the smaller bronchi. The lungs were not congested.

The first membrane that was thrown off on Tuesday morning was also shown by Dr. J., and from its size it must have come from the trachea; at one extremity it terminated in two large but short branches, and, exclusively of these last, it measured, as it lay, corrugated by the spirit in which it had been preserved, just 4 inches.

Two days after the death of this patient, his child, aged about 10 years, was attacked with sore throat, hoarseness, but no aphonia, and active constitutional symptoms; there was lymph upon the fauces, which was removed by an application of the tr. ferri mur., and in about ten days it recovered.

His sister, who lived at a distance of three or four miles, and was with him much of the time the last two days, was taken a few days after his death with apparently the same disease, and died on the evening of the 5th inst.

Dr. Jordan has had, altogether, about four or five cases recently, but the others have done well.

Dr. Jackson remarked upon the rapidity with which the membrane must have formed in the trachea—in less than twelve hours.

Dec. 8th.—*Monstrosity.*—Dr. Jackson reported the case, which occurred in the practice of Dr. T. E. Francis, of Brookline. The fœtus was sent to him by his student, Mr. C. A. Shurtleff. It was born at 7½ months, was a first child, and lived for a short time. Over the upper part of the occiput, but on the median line, was a protrusion of the membranes of the brain, forming a deep red, shining and fleshy mass, but covered about the base by skin and integument; the whole being of rather a rounded form and nearly or quite equal in size to the last joint of the thumb. The cranium, which had been partially prepared, and was shown to the Society, was sufficiently capacious, but rather flattened, and the sagittal suture was largely open throughout. This last having been cut through at the time of the dissection, the brain was examined as far as possible, but nothing unusual was observed. The continuity of the membranes into the external mass was quite distinct. The opening in the occiput is about large enough to allow the thumb to pass.

The abdomen was very unusually large, owing to the great size of the kidneys. The left, which was particularly examined, weighed 6 ounces, was quite irregular upon the surface rather than lobulated, had no investing membrane that could be detached, and contained throughout immense numbers of cysts, about one half of a line in diameter. The ureter consisted of a whitish, condensed, impervious cord, not a line in diameter; and the pelvis was merely an enlargement of the same tissue. Internally no trace of the natural structure of the organ was visible to the naked eye. The following microscopical examination was made by Dr. Jeffries Wyman:—"There were only traces of the natural structure of the kidney. A few uriniferous tubes, with their epithelial linings, were seen, but no unequivocal Malpighian bodies, though there were some rounded masses covered by a capsule that might have been such. No connection was traced between the cysts and the uriniferous tubes. The contents of the cysts consisted of a transparent fluid, in which were floating numerous rounded cells, with a central nucleus similar to those figured in Jones and Sieveking's Pathological Anatomy (Am. Edit., 1854), p. 555, fig. 254, *a*. In one of the cysts an octohedral crystal, probably of oxalate of lime, was found."

The other kidney presented the same appearances externally, and has been preserved entire. The other organs were well formed; the bladder being tolerably developed. Sex, female. Feet affected with varus.

Dr. J. said that he had once, in a monstrosity, found the kidneys in very much the same condition as in the present case, except that they were not so large, the cysts contained no fluid, and the ureters and pelves were not obliterated (No. 810 in the Society's Cabinet); in another monstrosity (No. 788) the kidneys were made up of cysts. In a young man, aged 19 years, he supposed, from the history of the case, that the disease was congenital (No. 589). Dr. C. D. Homans reported to the Society the case of a little girl, 12 years of age, in whom the encysted disease of one of the kidneys was probably congenital (Boston Medical and Surgical Journal, June 19th, 1856); and, lastly, Cruveilhier figures a specimen from a child 3 years old (Livr. 6), the disease being regarded by him as congenital.

Dr. J. thought that encysted disease of the kidneys was oftener congenital than it was generally supposed to be; and he remarked that the condition of the organs that is found in a monstrosity may be found also in a subject otherwise well formed.

Dec. 22d.—*False Membrane expectorated by a Patient with Croup.*—Dr. Jeffries Wyman showed several fragments of lymph, some of them several inches in length, and tubular, which had been coughed up by a patient with membranous croup; and gave the following account of the case, which he had received from Dr. J. T. G. Nichols, of Cambridge, the attending physician.

The patient was a boy, 9 years old, generally healthy. Had inflammation of the upper lobe of left lung, one year ago, from which he recovered perfectly. For past month not as well as usual, but no definite complaint. On November 22d, was exposed to wet, and at night was chilly, next day feverish and hoarse. On 24th, felt better, and went out. That night, had chills again, more hoarse, and had dry, ringing cough. On the 25th, feverish, with increase of hoarseness and cough, and noticeable dyspnœa at night. On the 26th, no improvement, and at night dyspnœa much more marked, with pretty severe suffocative attacks. Got Dover's powder at night, and during night two emetic doses of ipecac. Dr. N. saw him at 9, A.M., of 27th. Symptoms of croup well marked—voice extinct; cough dry and sharp; breathing labored; during paroxysms of severe dyspnœa some lividity of face; tongue moist, with thin, white fur; fauces red, and with tonsils (which are slightly enlarged) covered with a thin, starchy exudation. On left tonsil is a small patch of thicker exudation, of a greyish color. No external swelling. Some tenderness of larynx and trachea on pressure. Pulse of fair strength, 140. Skin hot and dry. Not much thirst. Was seen by Dr. Wyman, in consultation, and the following treatment prescribed. Dover's powder, gr. iv., every three or four hours. To drink as freely as he will of a saturated solution of bicarbonate of soda, in "soda water" (carbonic acid water). To have an enema of bicarbonate of soda, ʒi. in solution, every four hours, if retained. The room to be kept filled with steam. Fauces sponged with solution of nitrate of silver, 40 grains to the ounce.

At 8, P.M., expelled, after a severe paroxysm of suffocative cough, a tube of false membrane, followed by almost complete relief from dyspnœa. Had a very good night. At 8, A.M., of 28th, dyspnœa increasing. Considerable muco-purulent expectoration. At 9½, A.M. (13½ hours' interval), expelled another tube, with much relief of dyspnœa, which gradually increased, however, until 6½, P.M. (9 hours' interval), when he expelled two tubular membranes. During night, respiration grew worse again, and at 9, A.M., of 29th (14½ hours' interval), expelled another membrane. Pulse now soft, 98. Skin moist. Somewhat exhausted. Ordered wine whey. At 6½, P.M. (9½ hours' interval), expelled another membrane, preceded by gradually increasing dyspnœa and followed by marked relief, which continued till the morning of the 30th, when the breathing again became labored, and at 3½, P.M. (21 hours' interval), expelled another membrane. Had a good night. On Dec. 1, respiration much easier. Cough frequent, paroxysmal, with more copious muco-purulent expectoration, at times bloody. During the day, expelled two small pieces of membrane. Sonorous rales over whole chest, with slightly diminished resonance over left upper lobe. Give the enema three times daily. On the 2d Dec., improvement continues. Expelled a small piece of membrane. On the 3d, enemata omitted; and on the 5th, the steam and the "soda water" were given up. From this time he slowly improved, having cough, with copious muco-purulent expectoration, more or less bloody. On the 15th, he spoke aloud for the first time. On the 19th, sitting up; voice still rough; less cough; very pale and weak, but improving daily, under iron and quinine. During treatment, he took about three ounces of the bi-carbonate in enemata, and four quarts of soda water saturated with the bi-carbonate. The bowels were opened daily. At one time he had severe pain in abdomen, which was relieved by substituting for the water, in the enemata, an infusion of spear-mint. The urine was not examined, but was not much if at all increased in quantity. The intervals at which the different portions of membrane were expelled will be clearly seen by the following table:—

Nov. 27th,	1st tube.			
" 28th,	2d "	13½ hours interval.		
" "	3d "	9	"	"
" 29th,	4th "	14½	"	"
" "	5th "	6½	"	"
" 30th,	6th "	21	"	"
Dec. 1st,	2 small pieces.			
" 2d	1 " "			

Voice recovered on the 15th.

Army Medical Intelligence.

Annual Report of the Surgeon-General, U.S.A.

Surgeon-General's Office, November 10th, 1862.

Sir,—I have the honor to lay before you a statement of the fiscal transactions, and a report upon the operations generally, of the Medical Department of the Army, for the fiscal year ending on the 30th of June, 1862.

The amount of the appropriation for the Medical and Hospital Department on the 30th of June was—

In the hands of disbursing agents		$36,006 62
In the Treasury of the United States		11,172 92
Amount appropriated per Act July 17, 1861		1,271,841 00
Amount appropriated per Act Feb. 25, 1862		1,000,000 00
Amount appropriated for deficiency to June 30, '62, approved Feb. 25, '62		125,000 00
Amount refunded into the Treasury, on account of Medical and Hospital Stores sold at auction, viz., D. D. Morrison, $[illegible], John Moore, $[illegible], L. H. Abadie, $330.43, I. D. Cotton, $240.00, Samuel Elliott, $18.32		1,874 35
Total		$2,445,894 89
Of this sum there has been expended on account of		
pay, &c., of private physicians, contracted in 1861	$35,052 91	
do. do. in 1862	86,597 76	
For medicines, instruments, hospital stores, &c.	2,249,462 52	2,371,113 19
Leaving in the hands of disbursing agents		$73,781 70

It has been usual for a report of the sickness and mortality of the Army to accompany this report, but it is found impracticable, arising from the vast amount of labor incident thereto, and it will be furnished, it is believed, in time for publication as a supplement to the "Surgeon-General's report for the fiscal year ending June 30, 1862." In the meantime, however, I am able to present the following statement of General Hospitals, and the number of patients according to the latest returns received at this office.

Names of Hospitals.	*Location.*	*No. of Patients.*	*Names of Hospitals.*	*Location.*	*No. of Patients.*
Ascension,	Washington,	294	Hammond,	Point Lookout, Md.,	977
Armory,	"	486	Bellevue	New York,	609
Carver,	"	1278	David's Island,	"	2146
Columbian,	"	728	Jews	"	53
Cliffburne,	"	1087	Ladies' Home	"	263
Casparis,	"	113	City,	"	240
Douglas,	"	345	Fort Wood,	"	503
Eckington,	"	330	Twenty-eighth St.,	"	36
Emory,	"	902	Blackwell's Island,	"	248
Epiphany,	"	172	Brooklyn,	"	131
Ebenezer,	"	137	Long Isl'd College,	"	122
Finley,	"	561	Fort Schuyler,	"	455
Harewood,	"	1834	St. Luke's,	"	56
Judiciary,	"	491	Fort Columbus,	"	93
Kalorama,	"	19	New Haven,	Connecticut,	175
Mount Pleasant,	"	1351	Portsmouth Grove,	Rhode Island,	1322
Odd Fellows' Hall,	"	168	Newark,	New Jersey,	1343
Patent Office,	"	660	Clareysville,	Maryland,	463
Ryland Chapel,	"	101	Beaufort,	North Carolina,	269
Stone,	"	92	Newbern,	" "	118
St. Elizabeth,	"	135	Portsmouth,	" "	58
Trinity,	"	315	Hilton Head,	South Carolina,	227
Union Chapel,	"	47	Beverley,	Virginia,	61
Cranch,	"	178	Grafton,	"	152
St. Aloysius,	"	239	Parkersburg,	"	59
1st Division,	Alexandria,	585	Wheeling,	"	74
2d "	"	512	Fort Monroe,	"	1600
3d "	"	534	Chesapeake,	"	238
Camp Parole,	"	347	Mill Creek,	"	681
Fairfax Seminary,	"	1176	Hampton,	"	352
Seminary,	Georgetown,	115	Yorktown,	"	162
Union,	"	174	St. James,	New Orleans, La.,	300
Presbyterian,	"	117	Marine,	" " "	1200
Trinity,	"	191	City,	St. Louis, Mo.,	447
College,	"	293	Marine,	"	193
Dunbarton,	"	97	Charity,	"	85
Camden Street,	Baltimore,	575	House of Refuge,	"	719
Stewart's Mansion,	"	450	Good Samaritan,	"	133
Patterson Park,	"	282	Benton Barracks,	"	106
Newton University,	"	202	Convalescent,	"	1021
McKim's Mansion,	"	332	Jefferson Barracks,	Missouri,	1049
West's Buildings,	"	682	Jefferson City,	"	100
Annapolis,	Annapolis, Md.,	1197	Springfield,	"	251
Gen. Hospital, No. 1,	Frederick, Md.	717	Keokuk,	Iowa,	1520
" " 2	"	194	Quincy,	Illinois,	422
" " 3	"	306	Gen. Hospital, No. 1,	Louisville, Ky.,	145
" " 4	"	261	" " 2	" "	138
" " 5	"	491	" " 3	" "	158
" " 6	"	193	" " 4	" "	227
Camp A,	"	697	" " 5	" "	116
" B,	"	398	" " 6	" "	134
Broad Street,	Philadelphia, Pa.	785	" " 7	" "	125
South "	"	202	" " 8	" "	134
Wood "	"	186	" " 9	" "	125
Fifth "	"	218	" " 10	" "	129
St. Joseph's,	"	120	" " 11	" "	133
Christian Street,	"	187	" " 12	" "	149
West Philadelphia	"	1863	" "	Columbus, Ky.,	78
Pennsylvania,	"	100	Floating Hospital,	" "	20
Summit House,	"	147	Paducah,	Kentucky,	214
Fourth Street,	"	221	Bardstown Road,	"	80
Catharine "	"	85	Greenup Street,	Covington, Ky.,	61
Master "	"	214	U. S. Hospital,	" "	173
Front "	"	186	Seminary,	" "	230
Turner's Lane,	"	154	Union City,	Tennessee,	60
Race Street,	"	313	Memphis,	"	676
Hestonville,	"	151	Jackson,	"	551
Germantown,	"	139	Gen. Hospitals (5),	Evansville, Ind.,	1070
Filbert Street,	"	313	Marine,	Cincinnati, Ohio,	62
York,	Pennsylvania,	926	Third Street,	" "	61
Reading,	"	202	West End,	" "	85
Harrisburg,	"	597	Camp Dennison,	" "	1582
Chester,	"	816	Washington Park,	" "	228

The number of General Hospitals is thus seen to be 150, and the total number of patients in them, 58,715.

During the past year the health of the troops has been remarkably excellent. No epidemics of any severity have appeared among them, and those diseases which affect men in camp have been kept at a low minimum. Scurvy has been almost entirely prevented, and yellow fever, from which much was feared, has had but few victims. This immunity is due to the excellent hygienic arrangements instituted, and to the cordial manner in which Generals in command have coöperated with the proper authorities.

In an army of the size of that now maintained by the United States, it was of course to be expected that the absolute number of sick would be very large, and the important battles which have been fought have thrown a large number of wounded on the care of the Department. At present the total number under the charge of officers of the Medical Department is not short of 70,000, and immediately after the battle of Antietam it was over 90,000. That this large number could be provided for without some cases of unnecessary suffering occurring, would perhaps be too much to expect: but I must commend the Medical Corps, both of the regular and volunteer service, for the faithful and efficient manner in which their duties have been performed. In the discharge of their duties Medical Officers have been very much aided by the contributions of the people of the country, and by the efficient coöperation of the Sanitary Commission and Relief Associations.

In addition to providing the sick and wounded with medical attendance and medicines, much has been done by the Department in furnishing food, clothing, and comforts of various kinds. From much observation, both at home and abroad, and from the concurrent testimony of distinguished foreign medical officers, I am satisfied that never before were the sick and wounded of an army so well cared for as are those who have suffered for their country in the present rebellion. The hospitals, I take pride in saying, are a credit to the nation.

Before the several medical boards in session during the year (from July 1st, 1861, to June 30th, 1862), a large number of applicants for appointment in the medical staff of the Army were invited by the Secretary of War. Of these, sixty-six candidates duly presented themselves. Thirty-three of this number were approved, and five rejected; the remaining twenty-eight withdrew, one on account of physical disqualification. Before the same Boards, eleven Assistant Surgeons were examined for promotion, nine of whom were found qualified, and two not considered as coming up to the standard of merit required. In the examination by these Boards, the standard of attainments required for success was much lowered, the Board in New York being ordered to examine two candidates each day for the regular army, while the examination of candidates for the appointment of Surgeon of Brigade became little more than a farce. Since the 1st of June last, however, the standard of examination has been raised, and the gentlemen now entering the Medical Staff have been found fully competent to undertake the important trust with which they are charged.

The breaking out of the rebellion found the United States Army with a Medical Department arranged for a peace establishment of 15,000 men. Experience soon demonstrated the fact, that, however efficient its officers might be, the organization was such as to ill adapt it to the necessities of a large force in time of war. Partial progress in the right direction was made by Congress in increasing the rank of the Surgeon-General, adding a limited Inspecting Corps, and increasing the number of Surgeons, Assistant Surgeons, Medical Cadets, and Hospital Stewards. The Department was also placed on a more independent footing, and its whole status elevated. But there are still other measures, which, if adopted, cannot fail to add to the efficiency of the Department, and these I desire to urge through you on the attention of Congress.

First among these is the establishment of a permanent Hospital and Ambulance Corps, composed of men specially enlisted for duty in the Medical Department, and properly officered, who shall be required to perform the duties of nurses in the hospitals, and to attend to the service of the ambulances in the field. By the establishment of this corps several thousand soldiers, now detached as nurses, cooks, &c., would be returned to duty with their regiments, and the expense now incurred by the necessary employment of contract nurses obviated. A corps formed upon the basis of two men to each company in service, organized into companies of 100 privates, with one Captain, two Lieutenants, four Sergeants and eight Corporals to each company, would relieve the line of the Army from all details for the Medical Department, and enable the Department to render far more efficient services to the sick and wounded than it is capable of affording under the present system. The necessity of such a corps has been recognized in all European armies, and I am able to speak from personal observation of the great advantages to be derived from it.

I regard an increase of the Medical Corps, both of the regular and volunteer forces, as absolutely necessary. The law of Congress, approved July 2d, 1862, provides sufficiently, except for cavalry and artillery regiments, for the wants of troops in the field, but the service in hospitals has to be filled to a great extent by the employment of contract physicians. I therefore recommend that the Medical Corps of the Regular Army be increased by twenty Surgeons and forty Assistant Surgeons, and the Staff Corps of Volunteer Medical Officers by fifty Surgeons and two hundred and fifty Assistant Surgeons. This last Corps now consists of 200 Surgeons and 120 Assistant Surgeons. The cavalry and artillery organization requires Medical Officers as much as infantry. The omission on the part of Congress should be supplied; a Surgeon and two Assistant Surgeons should be authorized for each regiment of cavalry, and for each regiment of heavy artillery, and an Assistant Surgeon for each light battery.

Under the First Section of the Act of June 30th, 1834, Assist. Surgeons of the regular army must have served five years before being eligible for promotion as Surgeon. On the 1st of November there were but six Assist. Surgeons in the army who had served five years. The effect of this law will be to prevent the filling of vacancies which may occur in the grade of Surgeon, and I therefore recommend that so much of said section as requires Assist. Surgeons to serve five years as such, before being eligible to Surgeoncies, be repealed.

The number of Medical Cadets is altogether too small for the necessities of the service. I therefore recommend that authority be given to appoint as many as may be required, in accordance with existing laws on the subject.

The institution of a Medical Inspecting Corps has been productive of excellent results. The number of Inspectors authorized is, however, too limited to enable the service to be as efficiently performed as is desirable. I therefore recommend that two Inspectors General and eight Inspectors be added to the present organization. The authorization of an additional Assist. Surgeon-General would also be a measure of great propriety.

Considerable progress has been made in the establishment of an Army Medical Museum. The advantages to the service and to science from such an institution cannot be over estimated. I respectfully recommend that a small annual appropriation be made for its benefit.

An Army Medical School, in which Medical Cadets and others seeking admission into the Corps, could receive such special instruction as would better fit them for commissions, and which they cannot obtain in the ordinary medical schools, is a great desideratum. Such an institution could be established in connection with any General Hospital, with but little if any expense to the United States. A hospital of a more permanent character than any now in this city is, I think, necessary, and will be required for years after the present rebellion has ceased. I therefore recommend that suitable buildings be purchased or erected for that purpose. If this is done, the Medical School and Museum will be important accessions to it.

Experience has shown that a most useful class of officers was authorized by the Act relative to Medical Storekeepers. The number now authorized is too small. They could very properly perform the duties of medical purveyors, now performed by medical officers, and thus officers who have been educated with special reference to service as physicians and surgeons, and who are now acting as medical purveyors, would be enabled to resume their proper duties. I therefore recommend an addition to the medical storekeepers.

At present the washing of clothes in General Hospitals is provided for as follows: One matron is provided for every twenty patients, who receives a compensation of six dollars per month and one ration. Great difficulty is experienced in large General Hospitals in procuring a sufficient number of matrons to perform this duty, and I have the honor to propose that, instead of this now unreliable plan, a sum of money, equivalent to the pay and allowance of a matron, say twelve dollars for every twenty patients, be monthly allowed to every General Hospital, to be appropriated for laundry purposes at the discretion of the Surgeon in charge, whether to the payment of matrons or the payment of bills for washing by steam or otherwise.

The 10th Section of the Act approved July 17, 1862, gives additional rank to officers of the Adjutant Generals, Quartermasters, Subsistence, and Inspector General's Department who are serving on the Staff of Commanders of Army Corps. There is, I think, manifest propriety in extending the provisions of this Act to the officers of the medical department who may be on duty with such command as medical directors, and I respectfully ask for such extension.

The Engineer and Ordnance Departments are charged with the erection of buildings which requires special knowledge. The building of hospitals also requires knowledge of a peculiar character, which is not ordinarily possessed by officers out of the medical department. It would therefore appear obviously proper that the medical department should be charged with the duty of building the hospitals which it is their duty to administer.

In the matter of transportation the interests of the service require that the medical department should be independent. Much suffering has been caused by the impossibility of furnishing supplies to the wounded, when those supplies were within a few miles of them in great abundance.

The establishment of a laboratory, from which the medical department could draw its supplies of chemical and pharmaceutical preparations, similar to that now so successfully carried on by the medical department of the Navy, would be a measure of great utility and economy. I therefore respectfully recommend that authority be given for this purpose.

In regard to the age at which recruits are received into service a change is imperatively demanded, both for the interests of the Army and the welfare of individuals. The minimum is now fixed at eighteen years, and it is not uncommon to find soldiers of sixteen years old. Youths of these ages are not developed, and are not fit to endure the fatigues and privations of military life. They soon break down, become sick, and are thrown upon the hospitals. As a measure of economy I recommend that the service age of recruits be fixed by law at twenty years.

The present manner of supporting the cartridge-box is productive of hernia or rupture. Many instances in support of this statement have occured since the commencement of the rebellion, and reports on the subject are frequently received from medical officers. I recommend that, instead of being carried by a belt around the waist, the cartridge-box be supported by a shoulder-strap. This would entirely obviate the evil.

At the last session of Congress the sum of two millions of dollars was appropriated for the relief of discharged soldiers. I recommend that one million of dollars of this sum be set aside for the establishment of a permanent home for those who have been disabled in their country's service. This measure is one of such importance that I forbear entering into details at this early period. An establishment of the kind, organized upon an approved plan, would be productive of incalculable benefit.

Soon after my appointment I issued circulars to medical officers, inviting them to co-operate in furnishing materials for a Medical and Surgical History of the Rebellion. A large number of memoirs and reports of great interest to medical science, and military surgery especially, have been collected, and are now being systematically arranged. The greatest interest is felt in this labor by the medical officers of the Army and physicians at large.

The reorganization of the Medical Department necessitated a new set of regulations for its guidance. Under your orders a Board has been in session preparing a new code. Their labors have been very much interfered with by the necessity of detailing them, from time to time, for more imperative duties, but I expect to be able to submit to you, in a short time, a complete set of regulations for your approval.

I have deemed it my duty, with your sanction, to visit, from time to time, the hospitals and armies of the eastern portion of the country. I have thus been enabled to make myself acquainted with their sanitary condition and medical wants. I hope, ere long, to be able to extend these inspections to the west.

A uniform diet table for General Hospitals has been prepared with great care, and promises to work advantageously.

Large depots of medical supplies have been established at New York, Philadelphia, Baltimore, Fortress Monroe, Washington, Cincinnati, Cairo, St. Louis, and Nashville, which have proved of incalculable advantage to the sick and wounded. Moreover, large sums have been saved by the accumulation of stores before the recent advance took place.

In terminating my report, I desire to express the hope that the labors of the Officers of the Medical Department may be made more and more worthy of the high mission which has been confided to them.

I am, Sir, very respectfully, your ob't serv't,
William A. Hammond,
Surgeon General.

Hon. E. M. Stanton,
Secretary of War.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JANUARY 1, 1863.

Inspection of Military Hospitals—First Report by Dr. Henry G. Clark, Inspector-in-Chief.—We have received Dr. Clark's first report, and its contents are most gratifying, showing conclusively that the design of the inspection was conceived in wisdom and is being carried out with discretion and fidelity, to the great advantage of the inmates of the hospitals, and to the extension of a spirit of mutual good will among the members of the profession thus brought into relation with each other.

The report begins with a short history of the inspection, showing that it was called for by the immense increase of the army without a proportionate increase of the United States Medical Inspectors. Copies of the original circulars to the gentlemen invited to serve are next given, together with all the documents placed in their hands on commencing their tours of duty; and the whole concludes with a résumé by the Inspector-in-Chief of the doings of the Inspection up to November 18th, from which we make the following extracts:—

"Immediately upon accepting service, I engaged Drs. Bowditch and Ellis, of Boston, to come with me to Washington, and commence the work. Familiar as they both were with hospital administration and experience, I was sure that their work would be done in the most faithful and competent manner, and that, with their aid, the inspection here, at least, would be well inaugurated.

"Dr. Stephen Smith, of New York, had already, under the appointment of your Committee, completed a primary inspection of all the Hospitals in the District of Columbia.

"Dr. David Judkins, of Cincinnati, had been detailed to inspect the Hospitals in that vicinity.

"Dr. Joshua B. Flint, of Louisville, Ky., was inspecting at and around that place; and Dr. Winslow Lewis, of Boston, at and around

New York. The above details were made by the Committee. My own assignments have been as follows, viz.:

"Dr. Charles E. Ware, October 29th, one month: Dr Benj. S. Shaw, November 18th, half a month: Dr. Morrill Wyman, November 5th, half a month.—At Washington and vicinity, and Frederick.

"Dr. Edmond Fowler, of Alabama, one month, October 31st.—Baltimore.

"Drs. Borland and Hodges, of Boston, November 15th.—Philadelphia and Baltimore.

"Dr. Francis Minot and Dr. Samuel L. Abbot, of Boston, November 19th, for two weeks.—Fortress Monroe, Norfolk, and Pt. Lookout.

"Dr. Charles E. Ware remains here, and will be followed in succession by Drs. Borland and Ayer, of Boston, the first on the 22d, the last on the 29th inst., for duty here and at Frederick.

"I shall be able very shortly to detail for services at nearly all the distant points, which I have hitherto been unable to do satisfactorily for want of a complete list of the General Hospitals of the U. S., which I have just succeeded in procuring.

"The larger part of the Inspectors, thus far, have been drawn from Massachusetts, because they were more accessible to me, better known, and therefore more available to me in a work so comparatively new.

"For the future I shall be able to avail myself more liberally and freely, of the talent now fortunately placed at the disposal of the Commission, and to make a more equable distribution of the privileges and labors of the Inspection.

"In accordance with the suggestion of the Committee, and with my own judgment, I shall avoid any assignments to gentlemen in the immediate vicinity of their own circles of residence and acquaintance.

"The several reports, I have the honor now to transmit, bear conclusive internal evidence, if any were needed beyond the unanimous expression of gratification, of the handsome manner in which the Inspectors have every where been received, and their object facilitated.

"A solitary rebuff only, the single exception necessary to prove the rule, occurred at one of the hospitals out of this District, and this was so promptly rebuked by the Surgeon-General, upon a report of the facts by the General Secretary, that it will not probably ever be repeated.

"The Surgeon-General, the Inspectors, and surgeons generally connected with the army, both in and out of the Hospitals, have manifested great cordiality towards the Inspection, and to myself as the organ of communication between this Department and the Medical Bureau, the greatest courtesy and consideration.

"The suggestions, contained in the reports, with regard to defects and evils found to be existing in any of the Hospitals, have, when transmitted by me, as they are frequently, by extracts, synopses, or verbally, to the Surgeon-General, invariably received his immediate and effective attention

"I only echo here the sentiments, repeatedly expressed, of the Inspectors, when I say that the condition in which they have found the great Hospitals of the Army, so far as they have been examined, has been to them a very agreeable surprise that so much has been accomplished, in so short a time, and so well.

"An inspection of the reports of the different Inspectors, at different and consecutive dates, will also show, in many instances, a very marked and progressive improvement in the condition of the Hospitals inspected.

"This improvement has, no doubt, been partly owing to the natural effects of time, and the better experience and opportunities of the officers in charge, but partly, also, I am assured by the surgeons themselves, to the friendly influence of the Inspectors, and of the establishment, in this way, of a sort of standard of excellence. In fact, it is impossible but that the opinions of men of standing and knowledge in the profession should have their proper weight upon a class of earnest, hard-working, and many of them capable, men, upon whom the accidents of war have unexpectedly and suddenly cast the gravest labors and responsibilities.

"I must not omit to notice here another instrumentality, which has, in a very important degree, contributed, in my judgment, to the establishment of the 'entente cordiale' between the surgeons and the officers of the Commission.

"It is the 'Army Medical Society,' which owes its origin to the far-sighted and thoughtful suggestiveness of the General Secretary, who, at an early day, invited the Surgeon-General and the other surgeons on duty in the District, to meet the members of the Commission, at these rooms, for a friendly conference upon matters of common interest connected with the administration of the General Hospitals.

"The meetings have been fully attended, and the result has been the formation of a permanent society, which, with a very simple organization, takes cognizance of all matters relating to the Hygiene, the administration of Military Hospitals, and the care of their inmates.

"The active members comprise the Surgical Staff within the District, and some of the officers of the Commission; but it affiliates to itself, *as associates, all the Surgeons of the Army and Navy*, and all the *Medical* members of the Commission, inviting them all to contribute to its stores of knowledge and to partake freely of its benefits.

"I respectfully transmit, with this, all the reports which have been received. They contain, as you will find, a very large amount of valuable material, of which, with future accumulations, I shall hope to make further use.

"In conclusion, after having carefully examined these reports, and having personally visited many of the Hospitals in this District, I feel bound to say, in relation to them, that, in so large a field, it would be wonderful not to find some weeds—to start and put into working order the ponderous machinery of Hospitals which contain, in the mass, more than 70,000 beds, without any friction, would be a miracle. Let us then, instead of criticizing too sharply, rather admire the energy, the skill, the administrative capacity, shown in extemporizing and systematizing an agency so beneficent and so grand."

I remain, Gentlemen, with great respect, your ob't serv't,

HENRY G. CLARK,
Inspector-in-Chief.

TREATMENT OF DISEASE BY OXYGEN GAS.—From a letter on this subject, published in the *Cincinnati Commercial*, we take the following:—

"Surgeon George G. Shumard, Medical Director of Danville District, suggested and instituted the experiment of administering oxygen gas by inhalation. Having in my possession a copy of his official report upon the subject, I take the liberty of transmitting the following extracts from it, which I hope will be sufficient to show who originated the important experiment referred to:—

"November 29, 1862.—I have frequently had occasion, in the course of my medical practice, to observe the apparent great want of oxygen in the blood drawn from patients laboring under different forms of autumnal disease. Impressed with the belief that this deficiency was not merely apparent, but real, and that blood, thus unfavorably constituted, if not the cause of disease, could not otherwise than exercise a very prejudicial influence upon the system, I several years ago instituted a series of careful comparisons between healthy blood and that drawn from patients laboring under different forms of autumnal disease, and succeeded in fully satisfying myself that such a deficiency really did exist, and that there was an excess of carbonic acid in the blood of all the cases examined. It therefore occurred to me that if oxygen gas could, by any means, be artificially supplied to the circulation, it might afford a valuable remedy in the treatment of autumnal and various other forms of diseases. It also occurred to me that the best channel for administering the remedy would be that which nature has herself established for the reception of oxygen—the lungs. I therefore resolved to try the experiment as soon as a favorable opportunity presented itself.

"In 1857, I was called to see a case of severe congestive chill, in which the patient, a man about 30 years of age, was cold and nearly pulseless. Active stimulants and other remedies usually employed in such cases were freely resorted to. A small quantity of nitrous oxide gas was also prepared, and administered to the patient by inhalation. Shortly afterwards the pulse increased in volume, and in about one hour from the time of the inhalation the extremities became warm, and the patient recovered from his chill. As other remedies were here employed besides the gas, and may have exercised an important influence in relieving the patient, I concluded to await the result of other experiments before publishing the case.

"Shortly after this, my duties called me to another portion of the United States, and I had no further opportunities for repeating the experiment until the 22d of the present month.

"Last summer, while acting as Medical Director at Huntsville, Alabama, I repeatedly urged the employment of the gas in the treatment of disease. The different medical officers stationed at that post were favorably impressed with the idea that it might be made a useful remedy; but, from some cause or other, the gas was not administered. I also requested Dr. Newman, a highly accomplished private physician of Huntsville, to employ the remedy in such cases as he might deem favorable for its use. A number of physicians in Cincinnati were also urged, a year ago, to administer the gas in cases of disease.

"On the 22d instant, a case of typhoid fever (Case No. 1), of a hopeless character, was reported from Danville General Hospital No. 3. As the patient was apparently dying, and could not, therefore, be in any way injured by the experiment, I resolved to try the effects of the gas. Assistant Surgeon Devindorf was accordingly directed to administer the gas to him immediately, which he did, in the presence of Assistant Surgeons Samlere, Aichele, and Simpson. The results were so striking in character as to impress every one present favorably with the remedy. I may here remark that two of the medical officers present, who were at first decidedly skeptical upon the subject, upon witnessing the result of the first experiment, immediately changed their opinions, and became enthusiastically in favor of the remedy.

"As soon as the favorable results of the gas began to exhibit themselves in case No. 1, Assistant Surgeons Sanlere, Aichele, Devindorf, Sampson and Avery were directed to visit the different hospitals in Danville, and, after having carefully examined the worst cases of disease in each, to select such for experiment as were considered entirely hopeless. They accordingly reported to me cases Nos. 2, 3, 4, 5, 6, and 7, to all of which the gas was immediately administered. The reports of all these cases are now before you, and from them you will be able to judge whether this remedy is or is not worthy of more extensive trial.

"Without attempting an analysis of these cases, I will merely remark that all the patients to whom the remedy was administered were pronounced hopeless by their attending physicians, and that their judgment in the matter was fully confirmed by that of the committee appointed to examine the cases before the gas was inhaled; that a striking improvement was observed in every case after the gas was administered: that under its influence warmth slowly returned to the extremities, after the most powerful diffusible stimulants that could be given had failed to produce that result: that the pulse increased its volume, and became much mere natural to the touch: that the delirium which had, in several cases, existed for weeks previously, entirely subsided: that the involuntary discharges from the bowels, in all but one case, ceased: that several of the cases, after lying for many hours delirious, or insensible, became rational, and conversed with those around them: that the countenance assumed a much more natural expression: that the livid spots upon the chest and abdomen of two of the cases changed to a light rose color, and commenced disappearing: that the patients all expressed themselves as feeling much better: that the effects of the gas were not merely temporary but permanent: that in the four cases that have died, life was apparently prolonged many hours by the remedy: and that three out of the seven supposed fatal cases are still living and may yet recover.

"I propose to continue the experiments, and shall hereafter not confine them alone to cases that are considered hopeless.

"Although it has thus far been tried in only eight cases, the results are sufficient to prove that we have in oxygen gas a remedy of surprising power, and one that bids fair to be of great service hereafter in the treatment of almost every variety of disease.

"The gas was administered to all the cases in the form of nitrous oxide, which was made in the usual manner, from nitrate of ammonia, by Prof. Brikford, of Danville, and Assistant Surgeon Sendere, U. S. V. For want of better apparatus, it was administered to the patients from beef bladders, which answered the purpose moderately well.

"Although the oxygen was employed in these cases in the form of nitrous oxide gas, I would not propose to use it so in all cases. In cholera and severe cases of congestive chill, I am persuaded that oxygen gas, in its pure form, or slightly diluted with atmospheric air, would be better: nor would I hesitate to give it in any form of discase in which the vital powers are depressed, since the cases recorded show that it relieves delirium and irritation instead of producing them." * * * * * * * * * *

"Such are the facts of the case, which can be certified to, if necessary, by every medical officer stationed at this post. Since the above report was written, the gas has been administered to a large number of patients here, and in every case with good effect.

I am sir, very respectfully, your obedient servant,

EDWIN HOLMES.

FATTY CONCRETIONS DISCHARGED FROM THE BOWELS.—At the last meeting of the Suffolk District Medical Society, Dr. Jackson referred to the case reported in the Proceedings of the Boston Society for Medical Improvement, on page 433 of this week's Journal, when Dr. Geo. H. Nichols (formerly of Portsmouth, but now of this city), who was present, related a somewhat similar case that came to his knowledge some years ago. The patient took about a wineglassful of *linseed oil* —given, he thinks, by an empiric; and within a day or two twenty or more concretions were passed from the bowels, about the size of large peas and of the consistence of tallow.

IT is stated that in Sturgis's Hospital, 9th Army Corps, 2d Division, Army of the Potomac, there have been registered over 600 wounded patients, on whom have been performed 74 capital operations, viz., amputation of legs, arms, or resections of these limbs, 33 of which were primary. The deaths after operations were stated to be eight.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, DECEMBER 27th, 1862.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - - -	43	37	80
Ave. mortality of corresponding weeks for ten years, 1853—1863,	40.4	34.8	75.2
Average corrected to increased population - - - -	00	00	82.91
Death of persons above 90 - - - - - - - -	1	0	1

Mortality from Prevailing Diseases.

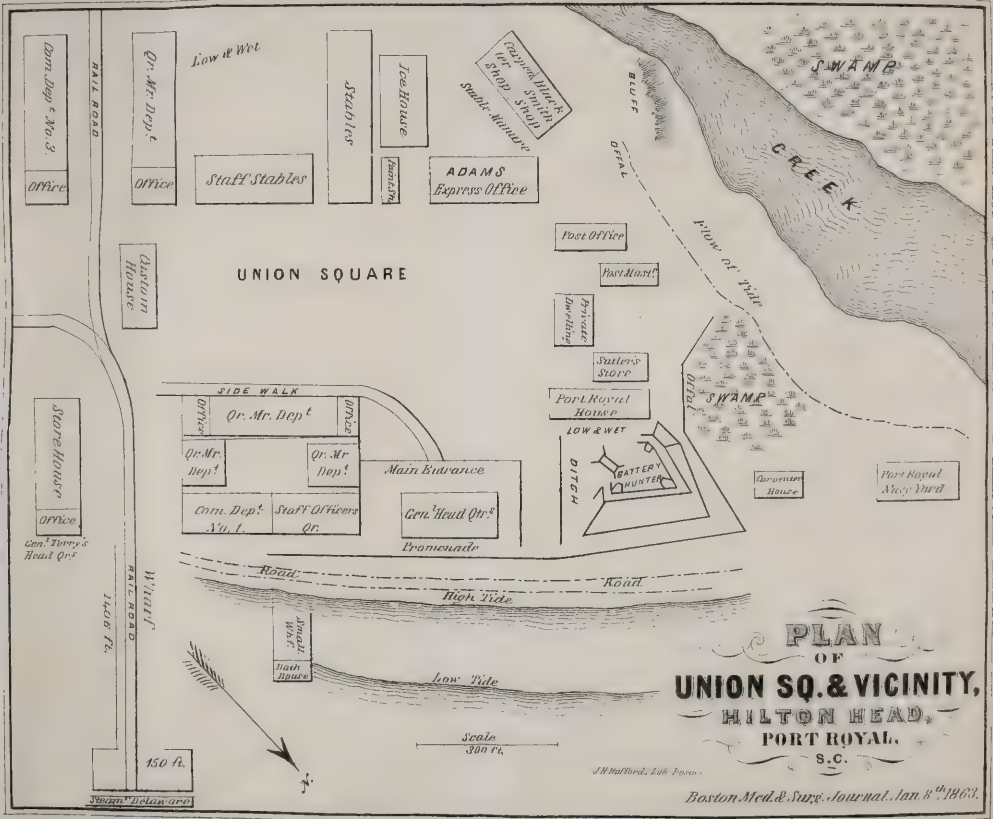
Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
12	7	3	5	0	0	2	1

ERRATUM.—An absurd error of the press in last week's JOURNAL made the title and running heading of the first article to read The Weak-*sight* Ophthalmoscope, instead of Weak-*light* Ophthalmoscope, as it was written.

TO CORRESPONDENTS.—The paper on the character and treatment of yellow fever, as it appeared recently at Port Royal, S. C., by Thomas T. Smiley, M.D., to which allusion was made in the JOURNAL some weeks since, has been received, and will appear next week.—Dr. Clark's communication on the Co-existence of Tubercle and Cancer came too late for this week, but will have an early insertion.

DEATHS IN BOSTON for the week ending Saturday noon, Dec. 27th, 80. Males, 43—Females, 37.—Accident, 4—congestion of the brain, 3—disease of the brain, 2—bronchitis, 2—disease of the bowels, 1—consumption, 12—convulsions, 3—croup, 7—cyanosis, 1—cystitis, 1—debility, 2—diarrhœa, 3—diphtheria, 1—dropsy, 1—dropsy of the brain, 5—eczema, 1--erysipelas, 1—scarlet fever, 3—typhoid fever, 2—infantile disease, 7—intemperance, 3—disease of the kidneys, 1—congestion of the lungs, 1—inflammation of the lungs, 5—old age, 2—peritonitis, 1—pleurisy, 1—rheumatism, 1—unknown, 3.

Under 5 years of age, 37—between 5 and 20 years, 7—between 20 and 40 years, 19—between 40 and 60 years, 8—above 60 years, 9. Born in the United States, 49—Ireland, 25—other places, 6.



PLAN
OF
UNION SQ. & VICINITY,
HILTON HEAD,
PORT ROYAL,
S.C.

Boston Med. & Surg. Journal, Jan. 8th, 1863.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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THE YELLOW FEVER AT PORT ROYAL, S. C.

[Communicated for the Boston Medical and Surgical Journal.]

U. S. General Hospital, Hilton Head,
Port Royal, S. C., Dec. 10, 1862.

Mr. Editor.—With the present condition of our country we are all familiar. The immense army now assembled at the North, together with the divisions which are stationed along the Southern coast, present an array of armed men which has rarely been equalled in the history of the world. All these men have been assembled at the North, and are familiar with Northern climates and Northern diseases, but in all probability a large portion of them will soon be transported to the Southern country, where some diseases prevail which are not met with at the North, and which during certain seasons of the year are very fatal to those not accustomed to the climate. It has become, therefore, of more importance than heretofore, to investigate the hygienic condition of the Southern country, and to do all that can be done to throw more light upon the nature and character of the diseases to which our people now are, or are likely hereafter to be, exposed. It is my intention, therefore, to communicate for your readers the results of my experience in this Hospital in regard to the character and treatment of one of the most deadly of Southern diseases, the appearance of which in an army of unacclimated Northern men would produce more terror than the assaults of the fiercest and most remorseless of enemies. I need scarcely say that I refer to the

YELLOW FEVER.

Though the yellow fever is substantially a disease of Southern climates, and confined chiefly to the intertropical regions, yet it has occasionally prevailed in some of our Northern cities, even as far north as Boston, but it has never penetrated beyond the limits of dense population, and has not become naturalized as one of the permanent diseases in any of the cities north of the Potomac. Its characteristics are therefore little known to Northern physicians, few of whom have ever seen a case of it. It is said to be essentially an American disease, and that it is nowhere else met with except in Southwestern Europe and Western Africa, where it has been brought from America. It is not found in Asia, though the southern part of India would seem to present all the conditions found in America favorable to the production and wide-spread prevalence of the disease.

The intermittent, bilious, typhus, typhoid and other similar diseases of that type, deriving their origin from marsh miasm, prevail throughout every part of the Southern country during the summer and autumn; but the yellow fever, on the contrary, is chiefly confined to the cities and towns near the coast, and never extends far from the limits where the salt and fresh waters intermingle. From the fact that the yellow fever is chiefly confined to the locality of dense population, it has been inferred that the causes which produce it are the same as those which give rise to the class of bilious affections, with the addition of some decomposed animal ingredients, subjected to a high temperature for a long time during the heats of summer, when the thermometer has been for two or three months at an average of not less than 79 or 80 degrees of Fahrenheit. The usual time for commencing its ravages is the latter end of summer or the beginning of autumn, and it always disappears immediately after it is met by the first frosts. The disease seldom attacks the same person twice.

U. S. STEAMER DELAWARE.

As I have before observed, my object at the present time is to give the results of my experience in the treatment of the disease as it appeared in this locality, and especially of the cases which were admitted into this hospital during the months of September, October and November of the present year. Before doing so, I shall state some facts connected with the appearance of the disease in this place, leaving the inferences chiefly to your readers.

The United States Steamer Delaware departed from Hilton Head on the 26th of July last for St. Augustine and Tortugas, where she took in a detachment of the 7th New Hampshire, which had been left sick there in June. The Delaware returned by way of Key West, which place she left on the 14th of August, and arrived at Hilton Head on the 26th of the same month.

Assistant Surgeon Cornick, who was a passenger, had been much exposed to yellow fever, and was taken sick at Tortugas, with what he supposed to be a mild attack of that disease, but he had entirely recovered before he arrived here, and no other case existed on board. The steamer was subjected to a quarantine of twelve days, at the end of which time Surgeon Dalton, who was also a passenger, said that there was no case of yellow fever on board.

On the 8th of September her quarantine expired, and she immediately landed several persons who were sick on board, and lay for about twelve hours at the end of the Long Wharf, but she did not otherwise communicate with this station. She then proceeded to Seabrook, some five miles distant from Hilton Head, took in coal, and departed thence for the North. Some of the sick persons landed were sent directly to the hospital, without stopping at any other place on shore; others did not come into the hospital till four days afterwards.

PATIENTS ADMITTED.

As there had been previously no indications of the existence of yellow fever on this Island, and as no alarm whatever in relation to that disease existed, the surgeon immediately in attendance did not at first recognize its true character. He treated it as an ordinary bilious fever of a mild type. The death of one of the patients, however, who afterwards put on the yellow and mottled appearance so characteristic of the disease, together with the discovery of black vomit in the stomach at the *post mortem*, presented the true condition of things in unmistakable characters. As soon as the true nature of the disease was discovered, all the patients who were known to have been received from the same source were separated from the others and placed in a ward by themselves. They were then carefully treated on ordinary principles, and apparently with some success and abatement of urgent symptoms, but black vomit soon after appeared amongst them, and the disease speedily carried away all who were attacked by it.

One of the patients mentioned above, who was not attacked by black vomit, had the sallow appearance and peculiar physiognomy incidental to yellow fever, with bleeding at the gums. He had escaped black vomit, but had been attacked by symptoms which might have been mistaken for scurvy. I have witnessed the same result in some other cases. He was directed to have beef-tea and other nourishing and easily digested food, with alcoholic and other stimulants, also astringent gargles, and in a short time he was restored to reasonable health, though he did not speedily regain his full strength.

About this time, a patient was admitted from the New York 47th, which lay encamped within the entrenchments at Hilton Head, who, it was said, had been some days sick, and the disease appeared to be obscure. He had vomiting and purging, and I prescribed for him the remedies usual in such cases. The appearance of black vomit, however, revealed to me the real nature of the disease, and he died within twenty-four hours afterwards. It did not appear that he had had any communication with the Delaware, or any person connected with it, previous to his admission into the hospital.

All the cases above referred to amounted to eleven in number, of whom nine died and two recovered. Of these, four were admitted on the 8th, three on the 12th, two on the 14th, one on the 16th, and one on the 17th of September, as will be seen by reference to the following table.

List of Patients admitted into the Hospital, Hilton Head, Port Royal, S. C., in September, October and November, 1862.

NAMES.	RANK.	REGIMENT.	CO.	ADMITTED.	REMARKS.
C. B. Kimball,	Private.	7th. N. H.	H.	Sept. 8th.	Died Sept. 15th, 1862.
D. K. Ripley,	“	“	C.	“	“ “ 9th, “
George Sweetner,	“	“	B.	“	“ “ 12th, “
R. Schofield,	“	47th N. Y.	K.	“	Ret'd to duty Oct. 3d, '62.
Morris Winn,	“	7th N. H.	B.	Sept. 12th.	Died Sept. 18th, 1862.
Timothy Schoener,	“	“	G.	“	Ret'd to duty Oct. 29, '62.
Patrick Burns,	“	“	G.	“	Died Sept. 14th, 1862.
Henry Oliver,	“	“	I.	Sept. 14th.	“ “ 15th, “
Horace Benton,	“	“	K.	“	“ “ “ “
Charles Stearns,	“	“	H.	Sept. 16th.	“ “ 17th, “
James McKee,	Serg't.	47th N. Y.	F.	Sept. 17th.	“ “ 19th, “
John Lowney,	Civilian.			Oct. 9th.	“ Oct. 10th, “
S. P. McKinstry,	Private.	47th N. Y.	E.	Oct. 10th.	“ “ 13th, “
John Hayes,		Qu. M. Dep't.		“ “	Ret'd to duty, Oct. 20, '62.
Patrick Barker,		“		“ “	“ “ “ 23, '62.
Henry McKuskee,		“		“ “	“ “ “ “ “
Jos. H. Knowlton,		“		“ “	“ “ “ 24, “
Thomas Hogue,		“		“ “	“ “ “ 20, “
John M. Poulston,		“		“ “	“ “ “ “ “
James Wright,	Private.	97th Penn.	D.	“ 22d.	Died Oct. 23d, 1862.
John Williams,	Civilian.			“ “	Ret'd to duty Oct. 23, '62.
Nicholas Carstens,	“			“ 24th.	Died Oct. 29th, 1862.
W. F. Fahenstock,	Private.	76th Penn.	E.	“ 25th.	Ret'd to duty Oct. 29, '62.
J. G. Huggins,	“	97th Penn.	E.	“ 26th.	Died Nov. 1st, 1862.
James Welsh,	Civilian.			“ “	Ret'd to duty Nov. 5, '62.
Charles King,	“			“ 27th.	“ “ Oct. 29, '62.
Archie C. Towne,	Private.	1st. Ms. Cav.	D.	“ 29th.	Died Nov. 5th, 1862.
H. Cashman,	Civilian.			“ “	Ret'd to duty, Oct. 31, '62.
Abner Macartney,	Private.	97th Penn.	F.	“ 31st.	Died Nov. 1st, 1862.
Sketchly Morton,	Lieut.	97th Penn.	I.	“ “	“ “ 12th, “
Wm. D. Burkhart,	Private.	76th Penn.	F.	Nov. 3d.	Ret'd to duty Nov. 20, '62.
John Blake,	Captain.	9th Maine.	C.	“ 5th.	Died Nov. 9th, 1862.
Henry Welsh,	Private.	3d R. I.	H.	“ 6th.	“ “ “ “
Samuel Miles,	“	97th Penn.	B.	“ 7th.	Ret'd to duty Nov. 19, '62.
Fred. A. Gould,	Civilian.			“ 10th.	Died Nov. 13th, 1862.
George A. Cottrell,	“			“ “	Ret'd to duty Nov. 20, '62.
William Wood,	Private.	N. Y. V. Eng.	I.	“ “	Died Nov. 13th, 1862.

SUBSIDENCE OF THE DISEASE.

After the cases beforementioned there was no suspicious case admitted into the hospital, and no death occurred which could be attributed to yellow fever for a long time, and we began to think that the disease had been brought here by the Delaware, and that it had departed after having spent itself on the persons already infected before they came on shore. We flattered ourselves with the idea that they had contracted the disease at Tortugas or Key West, and that it had died out without leaving any successors to continue or propagate the disease here. In this hope, however, we were disappointed.

REAPPEARANCE OF THE DISEASE.

On the evening of the 9th of October, twenty-two days after the admission of the last of the cases to which I have before referred, a patient was brought into one of the wards under my care a little after dark, from the Quartermaster's Department. I examined him by candle-light, and found that his eyes were deeply congested, his face bloated and red, his stomach irritated, with tenderness of the epigastrium. He had nausea, with efforts to vomit, and complained of headache, especially of the forehead above the eyes. He informed me that his bowels had been constipated for several days. His pulse was about 90, and rather small. As he was brought in accompanied by three other persons, all of whom appeared to have been drinking freely, I concluded that they had all been drinking together for three or four days, and that the symptoms observed were chiefly indicative of that fact. I accordingly prescribed for him aq. camph. to allay the irritability of the stomach, and directed that pil. cath. comp. No. iij. should be given to him as soon as there was a reasonable probability that he could retain them. A large sinapism was also applied over the epigastrium. This was about 7 o'clock in the evening. The next morning about 7 o'clock, or twelve hours afterwards, I was called to see him. I found that in the night he had been attacked with vomiting, which, on examination, proved to be black vomit, that about two quarts had been thrown up, and that he was then *in articulo mortis*. After death the yellow and ecchymosed condition of the skin, especially about the head and neck, removed all doubt, and showed clearly the true character and nature of the disease.

The last-mentioned patient, as has been already stated, was admitted on the 9th, and died on the morning of the 10th, about twelve hours after he was brought to the hospital. On the same morning shortly after his death, another man *walked* into the hospital. I met him on the corridor, and thought he had come in on some business. He also was from the Quartermaster's Department. He was admitted into one of the wards under my care. He had the symptoms of a slight attack of bilious fever, but complained of nothing in particular. He had scarcely any fever, and seemed rather to be weary than sick. I prescribed for him such remedies as I thought appropriate, and saw him frequently, but he gradually grew worse, delirium and black vomit came on, and notwithstanding all our efforts he died forty-eight hours after he had walked into the hospital.

The occurrence of two decided and strongly-marked cases of yellow fever, in men of the Quartermaster's Department, both of whom had been at work in the same neighborhood near General Mitchell's head-quarters, impressed us with the unwelcome fact that there was a centre of infection near the place, and that whether it had sprung up from the remnants of the disease left by the Delaware or not, or whether it was of spontaneous production, it had now become naturalized amongst us. This impression amounted to a certainty when soon afterwards six more cases were presented for admission, all engaged in the same employment and from the same locality.

From the 10th to the 22d of October, there were no new applications for the admission of yellow fever cases into the hospital, and we began again to hope that the disease had become extinct. But in this we were again disappointed, for from the latter date to the end of the month there was almost daily a succession of new cases.

During the last week in October we also heard of a considerable number of cases which did not enter the hospital. It was during this week that the lamented General Mitchell, who had, without doubt, contracted the disease at Hilton Head, went up to Beaufort to die.

DECLINE OF THE DISEASE.

After the 1st of November the number of cases gradually diminished, and after the 10th they ceased altogether; the weather, from about October 25th, having become much cooler. The character of the cases, however, in November, was not less severe than those previously admitted; on the contrary, some of the most malignant cases occurred during that period. By some authors it has been stated that towards the close of epidemic yellow fever the cases become much milder. This does not correspond with our experience, as some of the last of our cases were amongst the worst.

Throughout the yellow fever districts of the South, the appearance of the first frosts is looked for with great anxiety, as there is an absolute certainty that it will bring the disease to a close for that season. Our experience here affords a clear proof of the correctness of that observation. The first frosts took place on the 7th, 8th and 9th of November, and by reference to the table it will be seen that the last cases were admitted to the hospital on the 10th of that month. It is quite probable that these patients had been sick, as is most usually the case, for two or three days before admission, or at least that the stage of incubation was too far advanced to be destroyed by the change in the condition of the atmosphere.

TREATMENT.

I have already referred incidentally to the treatment of some of the cases; but it may be proper that I should make some further remarks on this part of the subject.

There are two modes of treating yellow fever in the regions where it chiefly prevails, each of which has its advocates. The first is the method practised in the West Indies, chiefly amongst the French inhabitants. It consists of treating the disease by mild measures, and by remedies applicable to the treatment of all fevers, and trusting rather to the recuperative energies of the system after the removal of noxious matters than to any active interference. In the first stage a small bleeding perhaps, mild diaphoretics with demulcent beverages; slight purgatives, fomentations to the abdomen, a few leeches to the epigastrium, with the warm bath, and, in the more advanced stages, the preparations of bark, the mineral acids and other mild tonics.

The other mode of treating yellow fever is more specific in its character. It consists mainly in the exhibition of very large doses of quinine and calomel frequently repeated. On these the chief reliance is placed, while at the same time no means are neglected to excite the action of the emunctories, so that the morbific matters may be carried off through the skin and kidneys. Stimulants freely administered, with nourishing and easily digested food, complete the routine of the treatment.

I have before stated that a number of the yellow fever patients which were first brought into the hospital, as soon as the true nature of their disease was discovered, were collected into one ward and carefully treated on general principles, not quite so mildly as by the French West India method, but still not approaching the specific and energetic course above described. This plan of treatment having been attended with little success in the cases referred to, it was determined to try, in future, the more active and specific treatment recommended by Dr. Fenner of New Orleans and other eminent Southern practitioners, as well as by Dr. Cummins and other British surgeons who have had much experience in the management of yellow fever cases in the West India Islands. When, therefore, the patients presented after the 9th of October were admitted, we were prepared to receive them, and each one of them was subjected to the following formula. The feet were placed in a bucket of water just as hot as it could be borne, and a sufficient quantity of mustard added to make it almost as strong as a mustard plaster. After bathing the feet for twenty-five or thirty minutes, that is, as long as it could be borne, the patient was placed in bed and covered with three or four blankets; twenty grains of quinine and the same number of grains of calomel were given to him at one dose, with a teaspoonful of spirits of nitre, and a large sinapism was applied to the epigastrium. The blankets were permitted to remain for three or four hours, and then were gradually removed. The sinapism was permitted to remain as long as it could be borne, and until it had made a decided impression. The dose of calomel was repeated every three hours, and a teaspoonful of spirits of nitre as frequently. To those who vomited excessively, a mixture containing two drops of creasote to each dose was given every half hour or hour, according to circumstances. All the patients admitted in the month of October, after the 9th, were treated according to this formula, with such additions and deviations as were indicated in each individual case. The success of this mode of treatment will be shown by the table which accompanies this. Most of them were constipated when admitted, and continued so during the treatment, requiring active cathartics for the purpose of relieving that condition.

Though the full doses of quinine and calomel were continued every three hours for two days and then gradually diminished, and continued three or four days longer, only one of the six patients exhibited any specific action of the calomel, and that one but very slightly.

It is also proper to remark, that all these cases came into the hospital early in the progress of the disease, and that though most of them on their convalescence showed very decided evidence that they had had this disease, by yellowness of the skin, and one of them by bleeding at the gums, yet they must be considered altogether as mild cases.

CASES REPORTED.

In the foregoing remarks I have referred incidentally only to the treatment; but as it may be more satisfactory to go a little into detail, I shall do so by giving a particular account of some of the cases which have passed under my observation.

Captain John Blake, 9th Maine, Co. C, was admitted into the hospital November 5th, about 3 o'clock in the afternoon. Told me he had come up from St. Augustine about two weeks previously, and that he had lived, since his arrival, at the Port Royal Hotel. He said he had been taken sick about three days before he came to the hospital; that he was first taken with a chill, and then had fever, but that the fever had subsided; that at first his bowels were constipated, and that he had taken a dose of cathartic pills which then operated freely.

When he came first to the hospital he complained chiefly of chilliness and severe headache, especially over the eyes; had also pain in the back, particularly low down near the sacrum; complained also of great weight and extreme tenderness of the epigastrium, the least pressure giving him pain. The abdomen also was tender on pressure, as well as the region of the bladder. He had difficulty of urinating freely. The bowels were constipated, not having been moved for two days past. Tongue clear, and looked natural. The pulse did not indicate febrile action, but was small, and not more rapid than in health.

Treatment.—The chilliness of which he complained being severe, gave him brandy punch freely to create reaction. Applied a very large sinapism over the stomach and bowels. Ice water to the head, to be continued till the headache should be relieved. Flannels wrung out of hot water to be applied over the pubic region, and to be continued till the urine flows freely. Covered him up with three or four heavy blankets. Directed him to have a teaspoonful of spiritus æth. nitr., and gave him pil. cath. comp. No. iij. to act on the bowels.

November 6th, morning. Bowels had been disturbed three or four times during the night. Dark-green-looking evacuations. Urine had flowed freely after the hot water appliances to the pubes. Headache and pain in the back much diminished; chilliness, however, still continues. Had perspired very little, if any. Directed his feet and hands to be immersed in water as hot as it could be borne, to which a large quantity of mustard had been added, and to remain as long as he could bear it. Prescribed quin. sulph. and calomel, each grs. xx., to be given at once, and repeated every two hours. Brandy punch and beef tea to be given freely.

12 o'clock, M., became very thirsty, and drank ice water freely. Again applied sinapism over the stomach and bowels, and directed it to remain as long as he could bear it. Continue all the remedies.

3 o'clock, P. M. About this time nausea came on, followed by vomiting. Bilious in appearance at first, but soon afterwards it was mixed with a few dark flakes. All the treatment continued.

November 7th, morning. Appeared to be much better. Headache nearly gone. Chilliness also has disappeared, and natural warmth seems to have returned. Nausea much relieved, and no vomiting. Bowels in good condition, evacuations appearing natural. Urine flowed freely, and apparently in sufficient quantity. Treatment continued as before.

November 8th, morning. Had vomited somewhat during the night. At about 2 o'clock this morning, dark flakes appeared amongst the matter thrown up. At about 8 o'clock, decided black vomit came on. Previous to this time, the black vomit was small in quantity, but now much increased, and large quantities were thrown up. The skin, which before this time had been but little affected, now became deeply tinged with the peculiarly yellow color so characteristic of the disease.

November 9th, morning. The patient continued to throw up large quantities of black vomit till about 4 o'clock this morning, when he expired. No post-mortem examination was made.

It will be observed that the most marked feature in this case is the delusive appearance of amendment just before the black vomit came on, and which very frequently, though not always, precedes that almost certainly fatal indication.

Henry Welsh, private, 3d Rhode Island, Co. H, was admitted into the hospital November 6th, 1862, about 9 o'clock, A. M. He appeared to be robust, and well formed. Had generally enjoyed good health. Had been working at the United States Bakery, and had been up at night for two or three months. He stated that he had been sick for four or five days, but had had no particular treatment. Complained of severe headache, especially of the forehead over the eyes, and had slight bleeding of the nose. Eyes congested and slightly yellow. Severe pain in the back and under the left shoulder. Complained also of weight and great præcordial oppression, with soreness and tenderness of the epigastrium on pressure. Constant nausea, and efforts to vomit frequently. Urine passed not without some effort. Bowels constipated. Pulse 100, small, and feeble. Had moaning and great general distress. Complained of feeling cold.

Treatment.—November 6th. Immediately on being admitted, his feet and arms to the elbows were immersed in water, as hot as it could be borne, with a large quantity of mustard added, where they remained until the mustard made a strong impression. He was then placed in bed, and covered with three or four blankets. As nausea and retching were the most distressing symptoms, I prescribed the following mixture:—℞. Soda bicarb., ʒ ij.; spts. lav. comp., f℥ ss.; syrup. simpl., f℥ i.; aq. camph., f℥ ijss. M. S., coch. mag. p. r. n., in the hope of relieving it. Hot brandy punch was given to him freely, as he complained of being cold, for the purpose of bringing on reaction. As the urine did not flow freely, and appeared to be deficient in quantity, I directed spirits æth. nitr. f ʒ j. to be given to him every three hours, with hot applications over the abdomen and pubis, and ol. tereb. gtt. x. to be given *ter die.* A large sinapism also was applied over the epigastrium, and permitted to remain till it had produced a decided impression. The main dependence, however, was placed on the following: ℞. quin. sulph., hydrarg. nitr., aa ʒ j. M. Ft. chart. No. iij. s., one to be given every two hours. The patient did not perspire freely. Vomited a little bilious matter, mixed with ingesta, during the day. Directed brandy milk punch, hot, to be given freely.

November 7th, morning. Had passed a very uneasy night. Much moaning and general distress. The sinapism again applied to the epigastrium. The powders of quinine and calomel to be continued every three hours. The spirits æth. nitr. and ol. tereb. also to be continued same as yesterday. Still has pain and distress about the region of the stomach and bowels. General distress rather increased. About 6 o'clock, P. M., singultus came on very severely. Gave him spirits æth. sulph. comp. f ʒ j., every half hour, with very little advantage. Continued to vomit more or less till 8 o'clock, P. M., when black vomit made its appearance, at first in small quantity, but soon increased greatly. Singultus frightfully severe, shaking the whole bed and creating great distress. Directed the following mixture to meet these symptoms. ℞. Mucil. aca., f ℥ ij.; liq. morph. sulph., f ℥ ss.; chlorof. f ʒ j. M. s. A teaspoonful, p. r. n. This mixture succeeded perfectly, and there was no more trouble with that symptom during the subsequent treatment. About midnight the black vomit set in, with more severity and frequency. Continued all the remedies above mentioned.

November 8th, morning. The black vomit still continues very copiously. All the vessels were filled with it, unmixed with other matters. The floor on both sides of his bed was covered with puddles of it, and his own and the adjoining beds were saturated with it. Black vomit still pouring from his mouth in streams. He died vomiting, about 3 o'clock in the afternoon of this day. It was computed that the clear black vomit which had been thrown up during the last twenty-four hours had amounted to not less than three gallons. After death the skin became more yellow and mottled.

Autopsy, fifteen hours after death. General appearance, robust and well developed. Black vomit from mouth and nose. *Skin* yellow, with bluish spots, especially about the head and neck. *Lungs* engorged and congested; melanotic appearance; emphysematous, probably owing to position. *Liver* enlarged; under surface of right and left lobes softened. Capsules easily torn off. Gall-bladder nearly empty; bluish slate color; tissue softened and changed, yellowish; bile blackened and thickened. *Spleen* natural in size; bluish slate color; under surface engorged. *Stomach*—mucous membrane softened and destroyed, being easily peeled off; black vomit in it; complete change in appearance of membrane. Black vomit was found in every part of the intestines, both small and large, and the mucous membrane everywhere was disorganized, and easily peeled off. The contents of the colon were not quite so dark in color as those of the stomach and small intestines.

The above-described case was decidedly the most malignant of any treated in this hospital, and it is not easy to conceive of anything of the kind more frightfully characteristic of this most terrible of diseases:

DEATH OF GEN. MITCHELL.

The following report of the last illness and death of General Mitchell, has been kindly furnished to me by his attending surgeon.

" Major-General Mitchell and Staff left Hilton Head Saturday, Oct. 25th, at 3 o'clock, P.M., for Beaufort, S. C., where they arrived at 4½ o'clock. The General seemed much troubled in consequence of the effect which he feared would be produced upon the Department by the sickness of his Staff and his sudden move from Headquarters. He remarked, 'the morale of the Department being gone, all is lost.' His care and extreme anxiety for his sons and the other members of his Staff, together with the care of the Department, created a state of depression which, no doubt, acted very unfavorably upon him during his sickness. He continued comparatively well, however, till Sunday night, October 26th, at which time he was attacked with a chill. October 27th, at 8 o'clock, A.M., I found him with high fever. Pulse 120. Skin peculiarly pungent, hot and dry. Intense supra-orbital pain. Violent pain in back, at junction of sacrum with lower lumbar vertebra. Eyes injected, as if just awakened. Face flushed. Edges and tip of tongue scarlet. Fleeting sensations of cold along the spine.

" I prescribed a mustard bath; pulv. ipecac., ʒ ss. Emesis soon occurred, producing free perspiration. Ginger tea; gum-water, with spts. æther. nitr. *ad libitum;* bottles of hot water to feet; iced water to head.

" 2 o'clock, P.M.—Patient is perspiring; pulse 110. Ordered quin. sulph., ʒ i.; also, tinct. verat. viridis gtt. v. every two hours. Iced gum-water and ginger tea continued.

" 8 o'clock, P.M.—Patient is perspiring gently; pulse 100; pain in head and back much less. Prescribed fl. ext. sennæ, fl. ext. rhei, aa ʒ i.; ol. tereb., gtt. x., m., every four hours during the night.

" Oct. 28th, 8 o'clock, A.M.—Patient rested well during the night; takes thin gruel with a relish. Pulse 90; pain in head and back almost entirely gone. Prescribed quin. sulph., ʒ i. Drinks continued.

" 12 o'clock, M.—Patient seems much more comfortable; has had one dejection; kidneys act well; takes nourishment freely; pulse 85.

" 2 o'clock, P.M.—Patient much worse. After my visit at 12 o'clock, he ordered his bed changed, got up, was attacked with a chill, followed by high fever; pulse 120; extremely restless, and complained of great uneasiness in epigastric region. Prescribed mustard bath, sinapisms, and other measures to promote perspiration, but without any permanent effect, as he refused to take medicine, or even to remain in bed.

"6 o'clock, P.M.—Patient is suffering very much from nausea and vomiting; pulse 100, becoming quite feeble. Prescribed brandy, champaigne, and other stimulants, as freely as he would take them.

"Oct. 29th, 6 o'clock, A.M.—Had remained with patient all night; rested but little; nausea and vomiting continued. Epigastrium having been blistered, patient could not longer bear the mustard. Iced drinks and stimulants freely taken. Mucilage gum. acaciæ ʒ i., creasoti gtt. i., m., given every hour for a time; also, spts. ammon. acet., none of which seemed to check the nausea. Urine entirely suppressed.

"9 o'clock, A.M.—Patient says he feels more comfortable; pulse 65, and gradually becoming slower and weaker; vomiting continues at longer intervals.

"12 o'clock, M.—Patient continues to sink; takes stimulants freely.

"8 o'clock, P.M.—Patient continues about the same; has vomited but twice since 12 o'clock.

"Oct. 30th, 9 o'clock, A.M.—Surgeon Crane, Medical Director, stopped with patient during the night. He has failed rapidly since my last visit. Asked for writing materials, and dictated his will, after which he said, 'The struggle of death has passed—God has called me, and I cheerfully obey the summons.' Patient is now extremely restless and constantly sighing, the usual precursor of black vomit.

"10 o'clock, A.M.—Black vomit by patient has just commenced; has voided one drachm of thick, oily-looking urine.

"12 o'clock, M.—Patient has thrown up quite an amount of black vomit since 10 o'clock; pulse just perceptible at wrist. Is now *in articulo mortis.* The body is rapidly assuming the characteristic lemon-colored appearance. Petechiæ and vibices, so common in grave cases of yellow fever, are appearing. The tongue is protruded with much difficulty. Hands and arms move without control of the will. Signs of uræmic poisoning are now strongly marked. Squinting of the eyes, and pupils very much contracted. Partial delirium. Spasmodic contraction of the muscles, &c., until 6 o'clock and 15 minutes, when he died. No *post mortem* was made.

"*Remarks.*—The question may arise, why was not mercury used in this case? I answer, my experience in two severe epidemics of yellow fever has been against the use of that medicine. No medicine, however powerful, can affect the secretion of the liver in a grave case of the disease. Some surgeons advocate the use of large doses of calomel and quinine. I have every confidence in large doses of the latter, but mercury, in my opinion, has a tendency to produce that peculiar state of the blood which we are so anxious to prevent. The secretion of the skin must be promoted in all grave cases of yellow fever, or the patient must die. The poison circulating in the system cannot be neutralized, and must be eliminated. In my opinion, neither the liver nor kidneys can be affected by medicines unless the secretion of the skin be first promoted, without which the patient must die of uræmic poisoning.

"In the epidemic of 1857 in Jacksonville, Florida, almost every patient under the usual treatment of mercury and quinine died, whereas almost all recovered after the practice of first promoting and then continuing the secretion of the skin was adopted. Indeed, this is the only process by which the poison can be eliminated from the system, and there is no more efficient sudorific than a large dose of quinine—say from one to two drachms, which I have frequently given.

"I am of opinion that had General Mitchell remained in bed and kept the skin in good condition, he would without doubt have recovered. His improvement after the first twelve hours was not the delusive change caused by uræmic poisoning, which usually precedes the outburst of black vomit. His fever had almost disappeared, and the liver and kidneys were beginning to perform their healthy function—a condition of things which never exists in the apparent improvement above mentioned.

"How this poison is so abundantly and quickly produced, is still amongst the mysteries of yellow fever; but that it exists, and is one of the most fatal symptoms, is beyond question.

J. D. MITCHELL, *Surg. 8th Me. Vols.*,
"To THOS. T. SMILEY, M.D., U. S. } In charge of General Mitchell and Staff."
Gen. Hospital, Hilton Head, }
"*Beaufort, S. C., Nov. 28th*, 1862.

I feel much inclined to concur with Surgeon Mitchell in his views as above expressed in relation to the use of calomel in yellow fever. If not absolutely injurious, it does not appear to me to have been productive of any good in the cases I have treated. Certain it is that the progress of the disease is much too rapid to permit the specific effects of mercury to take place in time, even supposing its tendency to be beneficial.

DIFFICULTY OF DIAGNOSIS.

I have several times referred to the fact that the true nature and character of the disease, when some of the patients were first brought in, were not immediately recognized. It is quite probable that this arose in part from our want of experience in treating it. It may be proper, however, to state that physicians of the largest experience have reported that there is generally great difficulty in the diagnosis in the early stages, before black vomit has commenced. The yellow color of the skin, which is so characteristic, especially after death, does not make its appearance in many cases at all before black vomit has set in, or convalescence has commenced in cases which recover. All the authors who have written on the yellow fever speak of this difficulty. In the first place, all fevers have in their commencement so much in common, that it is extremely difficult to say for a short time what particular form of disease is about to make its appearance. In yellow fever there is this further difficulty, that the fever is generally very slight, and frequently, after the first stage is over, subsides almost entirely. Again, in the early stages the appearance of a yellow fever patient often so closely resembles that of a man who has been drinking freely, that it would be extremely difficult always to distinguish between them. Dr. Cummins, Surgeon in the British Navy, says: "It is nearly impossible to distinguish between the morning effects of a night's debauch and the fever. The best way is to treat all cases which exhibit symptoms of congestion as I have recommended for cutting short yellow fever, and a few hours will decide whether it is the drunkenness of the disease or of rum, and sixty or seventy grains of quinine will do the latter no harm, and the calomel still less, for it rarely salivates in large doses followed by castor oil." Dr. E. D. Fenner, also, in his valuable remarks on the yellow fever in New Orleans, makes the following emphatic statement: "Physicians may say what they please about their being able to distinguish a case of yellow fever as soon as they examine it. We do not believe it possible, according to their ideas. Rarely does a summer pass in which we do not hear of some intelligent and experienced practitioner being perfectly astonished at seeing what he had pronounced a case of intermittent or remittent bilious fever terminate in black vomit or other hæmorrhage." It should excite no surprise, therefore, that we should not have possessed the power to do or the skill to distinguish that which physicians who have spent a great part of their lives in treating the disease have been unable to accomplish.

HOW WAS THE DISEASE TRANSMITTED?

That the poison which is capable of producing the yellow fever can be carried in the hold of a vessel, and can in that way be transferred to another ship or transmitted to another country, admits of no question. The proofs of such cases are too numerous and overwhelming to admit of a doubt. It is quite probable that it never appears spontaneously in any of our northern cities. In numerous instances when the disease has appeared there, it has been preceded by the arrival of one or more ships from some port where the yellow fever then prevailed. The vessel, enclosing in her hold the virus which engenders the disease, arrives at some northern city, and the temperature and other circumstances being favorable, it commences to diffuse itself, and in some unknown manner, possibly resembling the action of leaven, forms a new centre of infection, from which the disease begins again to spread. In the application of this principle to the case before us, the question presents itself whether the outbreak of the yellow fever on the 9th of October, in the Quartermaster's building, was the continuance of the disease brought by the Delaware, or whether it was of spontaneous production, arising from the hygienic condition of that locality and other places in the immediate neighborhood of the Union Square.

UNION SQUARE.

Let us now examine the plan of that part of Hilton Head near the Long Wharf, where the Delaware arrived on the 8th of September, immediately after her release from Quarantine, and remained for about twelve hours.

Commencing on the extreme end of the Long Wharf and proceeding on shore, we find, immediately on reaching the end of the wharf, on the right hand, the road, which runs close along the water's edge to the General Headquarters, first passing by the side of the Commissary Building, and then by the Staff Officers' Quarters. Proceeding further directly from off the Long Wharf, we find, on the left hand, General Terry's Headquarters, and on the right the Commissary Store, and, immediately adjoining, the long range of the Quartermaster's Building, in the extreme further end of which the yellow fever first made its appearance, thirty-one days after the Delaware had left the end of the Long Wharf, and twenty-two days after the last one of that class of cases which undoubtedly originated from that vessel had been admitted into the hospital. It will be found that the previous history of this locality is of some importance.

I have been informed by Capt. Ganettson, U.S.V., Depot Quartermaster, that the place where the Quartermaster's Building now stands, and the adjoining neighborhood, with a large portion of what is now the Union Square, was, when the United States forces captured Hilton Head, on the 7th of November, 1861, a swamp; and not only a swamp, but also the place into which the secessionists, who before occupied the Fort and its vicinity, had cast all their dead animals, filth and offal of every kind; that a portion of it also was covered by a dense growth of weeds and bushes. When the Union forces commenced the putting up of buildings there, they removed none of the filth, neither animal nor vegetable, but merely beat down the weeds and bushes, carted in sand upon it, and covered it all over a foot or two in depth. They then erected the building, and laid the floor directly on the sand which covered the filth at a slight depth below, without the shadow of a sleeper or anything to elevate the floor. It was amongst the persons who worked in this building, and whose sleeping place was directly over the worst part of this deposit, that the disease broke out, thirty-one days after the Delaware had departed, and from which all those who were admitted into the hospital on the 9th and 10th of October were received, one only excepted.

Commencing again, let us begin with the General Headquarters where General Mitchell then resided. These headquarters stand very near the bay, elevated only a little above high water mark, and at a very short distance on the right hand is Battery Hunter, which has been erected near to, or rather partly in the edge of the swamp. In making this fortification, the ground being most solid on the side next to the headquarters was dug out and thrown up, leaving a ditch, which was, at the time General Mitchell resided there, and is now, the greater part of the time, full of stagnant water. This ditch extends up to, and in the rear of the hotel. The hotel, which also stands mainly over the ditch I have mentioned, has in front of it nearly the same kind of substratum as I have described at the Quartermaster's building, and has some advantage by the elevation of the floors from off the ground; but the rear extends almost into the swamp which is marked on the map. The Post Master's house and the Post Office appear to have been erected on ground a little more solid than I have described, but immediately beyond Adams's Express Office and to the right of the stables the swamp extended originally nearly up to where the stables stand, but has now been filled in with stable manure and every sort of similar deposits almost up to the creek, so that but little of the swamp in that place remains in its original condition. The stable manure here deposited has recently been covered over slightly with sand. The creek itself is a foul receptacle, filled with decayed vegetable matter, into which the tide flows, and affording a good habitation for alligators, some of which are ten feet long. At high water the creek flows up over a considerable portion of the plot I have just described, and at low water a great portion of that plot is laid bare, and the mud and decayed animal and vegetable matter exposed to the penetrating rays of an almost vertical sun. If the fermenting theory be correct, there could not have been found a locality the condition of which was better adapted to receive the virus than the one under consideration.

On comparing the description of this locality with the map, without any previous knowledge of what occurred there, it would not have been difficult to have anticipated that sickness of some kind must result; and the yellow fever actually broke out where disease and death might have been expected. I have already mentioned the cases which were sent to the hospital from the Quartermaster's building, which is not more than two hundred feet from General Mitchell's Headquarters. The road along the shore leading from the Long Wharf to General Mitchell's Headquarters was seldom used; but the General and all the members of his staff, as well as visitors, always went from the main entrance and passed around and close to the corner of the Quartermaster's building, immediately in contact with the locality where the outbreak of yellow fever, to which I have referred, of the 9th and 10th of October had occurred, and over the ground where all the filthiness I have described lay buried at a slight depth below. It should excite no astonishment, therefore, that General Mitchell and nearly every member of his staff should have sickened, and that he and several members of his staff should have died. or that Colonel Brown of the Third Rhode Island, and other military officers who visited him at his headquarters, should have shared the same fate. Is it at all surprising that the Port Royal Hotel should have contributed a large quota for sickness and death? Is it surprising that Adams's Express Office and the stables beyond it, should have contributed some of the worst cases which were sent to the hospital?

That the U. S. Steamer Delaware brought the disease from Key West, where it prevailed when she left that port, and that the cases brought to this hospital during the month of September originated on board of that vessel, there can be no doubt, as all except one of them can be traced directly to that source; but whether the reappearance of the disease when it broke out in the Quartermaster's building, on the 9th and 10th of October, and the subsequent spread of the disease in that neighborhood, originated from the virus left by the Delaware, or whether it was of spontaneous production arising from the causes which I have mentioned, I shall not attempt to determine. I have presented the facts as accurately as I could obtain them, and I leave each of your readers to decide for himself.

PATHOLOGY.

I have said that it is not my design to write a treatise on yellow fever, and I do not intend now to deviate from that intention. There are one or two points, however, on which I cannot refrain from offering a few brief remarks.

The cause, or presumed cause, which gives rise to the first inception of yellow fever, I have already referred to—that is, the decomposition of some kind of vegetable matter mixed with an animal ingredient, under circumstances of prolonged high temperature and other conditions favorable to the development of that peculiar poison; but the exact pathological condition which exists when the fever sets in, when the yellowness of the skin takes place, when the black vomit commences, when death ensues, is enveloped in much of mystery.

What is the pathological condition which produces the peculiar and unique yellow, orange or lemon color of the skin? I know of no attempt to answer that question. In fact, the yellowness of the skin, except as a symptom, has been quite neglected by those who have written about the disease, and so far as I know no attempt has been made to show what it is that produces this peculiar color, or the pathological condition which precedes it. When we ask this question, we shall doubtless be told that it arises from a deranged condition of the liver; but in what this deranged condition consists, we shall not be told. In two cases which I have examined post mortem, the liver has been deeply engorged, but several accurate observers have reported that it has not unfrequently been found in a shrivelled and bloodless condition. If it were otherwise, it would not prove that this color of the skin is produced by that condition of the liver, as the appearance of the skin in no way approximates to that which we see in jaundice, when the bile is diffused in the blood, and in that way supplies the coloring matter which gives that peculiar tinge to the skin. Does, then, the peculiar color of the skin in yellow fever arise from the bile diffused in the blood? I do not think that it does. In my opinion the matter which colors the skin is in the circulation without reference to the liver, and is the product of the peculiar poison on which the disease depends.

The sensible properties of black vomit have been often described. When recently discharged from the stomach, it appears like a uniform or homogenous fluid, which, on standing, separates into a dark-colored flaky matter which subsides, and a nearly transparent supernatant fluid, but which has a slightly yellowish appearance. This separation takes place soon after it is thrown up, and if kept in an air-tight vessel it undergoes no further change. It is said to be nearly tasteless or acid. This description, however, gives no explanation of its origin, and the question still recurs, What is black vomit? This question is constantly repeated, but the echo as frequently dies away without any satisfactory response. Dr. Fenner calls it a "hæmorrhage;" but if so, the word must have been used in some latitudinarian sense not usual amongst physicians and unsupported by its derivation.

Professor Wood has expressed it as his opinion that black vomit is blood somewhat altered by its passage through the epithelium. What permits or compels the blood to be somewhat altered in passing through the epithelium, he does not tell us. If the learned Professor had ever seen black vomit, he would not have called it blood somewhat altered Blood somewhat altered is no longer blood: but black vomit is not blood somewhat altered; it is totally, entirely altered, and it seems to me that those who give it the name of blood at all, in any kind of sense, however qualified, are evidently wrong, as its sensible properties in no way sustain them. If it be argued, as some have done, that it is secreted from the blood, that is abandoning the whole ground, and is quite another matter; for mucus, pus, urine, milk, &c., are secreted from the blood, but nobody ever thinks of calling either of them blood somewhat altered. The microscopic observations of Dr. Reese on black vomit, by which he discovered numerous animalculæ in it, revealed no blood corpuscles. Dr. Hassall, also, in his microscopic observations on the black vomit, in which he found, amongst other matters, "the ramose sporules of a fungus," discovered no blood corpuscles. Can any substance which possesses none of the sensible properties of blood, and contains no blood corpuscles, be properly called blood, or even blood somewhat altered? If black vomit, then, be neither blood nor blood somewhat altered, what is it? If that question be proposed to me, I answer that, in my opinion, it is a substance, *sui generis*, secreted from the bloodvessels into the stomach, and, not unfrequently, into the bowels also, by some diseased action, in a manner analogous to the secretion of the rice-water evacuations into the bowels in Asiatic cholera, and that the one is just as much entitled to be called blood, or blood somewhat altered in its passage through the epithelium, as the other; and yet whoever heard of any one calling the rice-water evacuations of cholera "blood somewhat altered"?

After all, neither the color of the skin, nor the matter secreted into the stomach and bowels, is the disease. They are the effects only of the morbid condition, and the disease itself must be sought far further back. I venture to suggest that further microscopic observations should be carefully made, not only on black vomit, but on the blood itself in cases of typhus icterodes, in order to ascertain if further light can be thrown on this obscure subject by a minute and careful examination of that vital fluid.

CONTAGION.

Though the question as to the contagious or non-contagious character of yellow fever was for a long time hotly disputed, I think that the medical opinions of those who have been familiar with it, and have had the best opportunities of observation, now incline to the side of the non-contagious character of the disease. Still, as opinions are far from being unanimous, a short account of our experience here on that point will not be out of place.

By the table which accompanies this, it will be seen that the first yellow fever patients were admitted into this hospital on the 8th of September, and that the last one was admitted on the 10th of November, and that some of the last of those admitted did not leave the hospital till nearly two weeks later. We had the disease, therefore, in the hospital for a period of full two months and a half. The patients were not only in one ward, but in all the wards. They were intermingled with the other patients, not one of whom had probably had the disease himself, or had ever before seen a case of it in others. The physicians and nurses, who were of course constantly engaged in administering to their necessities, were in no way protected from an attack. Including the physicians, nurses, patients in the hospital, visitors and persons employed in different ways, there must have been at least three or four hundred persons, unacclimated, who inhaled the same air, and were exposed more or less to the effects of all the secretions and exhalations of those who were sick with the disease, of whom many, as I have stated, had it and died of it in its worst form; and yet not a single individual in the hospital, and no one that visited it temporarily from without, is known to have had the yellow fever, or any disease resembling it.

As for myself, I have resided for many years in Philadelphia, and though the yellow fever has in a few instances, at remote intervals, visited that city, I had never seen a case of it until these patients were brought into this hospital. I had never travelled south of the Potomac, and could not have had any disease which would have afforded protection against an attack of this one. Here I have lived and slept in a room separated only by a thin board partition, with numerous open spaces, from a ward in which six patients died in the course of a week. I have had a large number of the yellow fever patients under my special care during the whole of their treatment, amongst whom were some of the very worst cases. I have visited them very frequently, both by day and by night. I have been present with them often while vomiting large quantities of the substance which is peculiar to the disease. I have stood in puddles of black vomit on the floor, by the bed-side, when the vessels were filled and the bed-clothes of the patient and those of the adjoining beds were saturated with it. I have made, in one of the very worst of the cases, a *post-mortem* examination, and have stood leaning over the cadaver, with my hands bathed in a mixture of blood and black vomit, for more than half an hour, while at the same time I was breathing the exhalations which arose from the body. Yet I have been, during all this time, in my usual health, and have had no symptom which by any possibility could be attributed to that disease. If contagious, it would seem to have been impossible that I could have escaped from taking it. Can a disease be contagious which does not affect a single person out of three or four hundred exposed to it? We have no hesitation, therefore, in saying that, according to the experience of this hospital, the yellow fever is not contagious.

I feel strongly inclined to discuss the practical bearings of this subject on commerce, and to offer some remarks on the necessity and extent of quarantine regulations, but I fear that I have already exhausted the patience of yourself and of your readers. I conclude, therefore, while I am, Yours, very respectfully,

THOS. T. SMILEY, M.D.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JANUARY 8, 1863.

TREATMENT OF DIPHTHERIA.—A correspondent at Ravenna, Ohio, writes as follows:—

"Diphtheria is proving very fatal here this winter. I would like to inquire if there has been any essential change of treatment in your city within the past year, or any method has been adopted which is more successful than those heretofore used. If you would give us the most approved plan of treatment we should be extremely grateful, particularly if it should prove more efficacious than our own. Heretofore we have managed the disease quite satisfactorily, but this season it baffles the skill of our ablest physicians."

To the inquiry of our correspondent we regret that we cannot give a very satisfactory answer. Diphtheria is one of those mysterious diseases, like Asiatic cholera, that seem, in their malignant form, to defy all remedies. Boston has heretofore been remarkably exempt from its visitations, it never having been properly epidemic here. In fact, we should say it is one of the rarest diseases with us, and many a practitioner in a small country town has had a larger experience in treating it than any physician here. Such being the case, we cannot speak from any extended experience of the superior efficacy of any special course of treatment. Our correspondent gives no details of the phenomena of the disease as now prevailing in his locality, and we cannot of course understandingly recommend any particular remedies. From what we have seen and heard of the disease here, we should say that chlorate of potass, with tonics, is the remedy upon which most reliance is placed. We should be glad to have a more detailed account from our correspondent of the epidemic now prevailing in his vicinity.

CONFECTION OF PUMPKIN SEEDS FOR TÆNIA SOLIUM. — *Mr. Editor*,— Seeing an extract in your Journal of last week, relative to the treatment of tænia with pumpkin seeds, and having had occasion to prescribe the confection of pumpkin seeds in three cases of tænia within two years, my last patient this week, a little girl of seven years of age, I have thought my experience might not be uninteresting to your readers. My patients fast twenty-four hours before taking the remedy, and this is a very important part of the treatment. To a child six or eight years of age, give ʒiv. of pumpkin seeds (the husks being removed) thoroughly bruised with ℥i. of white sugar, and add ℥iv. of milk. This is a very agreeable diet for children. Three hours after administer ℥ss. of castor oil; to an adult give double the quantity. This treatment seems very simple, yet it has never failed to expel the tænia whenever I have prescribed it.

A. K. CUMMINGS, M.D.

Claremont, N. H., January 1st, 1863.

MR. EDITOR,—In examining a large number of men for service in the army, I have accidentally hit upon a point which, though of slight importance, is nevertheless interesting anatomically, and I should be glad to know if the fact has been noticed by others. In passing the hand down the vertebral column, there is a lozenge-shaped space, situated over the lower lumbar vertebræ, where the papillæ of the skin are very fully developed, to a greater extent, in fact, than in any other part of the body, and giving a decided sense of roughness to the hand. As far as my experience goes, this condition is constant; and my experience has been confirmed by two or three gentlemen to whom I have mentioned the fact. B.

THE letter given below has been sent to the Dean of the Faculty of some of the Medical Colleges, and it being impracticable to send it to all, their attention is called to it.—*American Medical Times.*

SURGEON-GENERAL'S OFFICE, December 22, 1862.

SIR,—It has been determined to require from candidates entering the medical staff of the army, that they shall have attended at least one course of lectures on hygiene and military surgery.

Information is already received at this office that more than one medical school has determined to establish a chair for the teaching of the above branches, and your particular attention is invited to the propriety of adding to the faculty of your school a professor of hygiene and military surgery.

In this manner, not only will the general education of candidates for graduation be advanced, but the U. S. Army Medical Service will be the gainer in having more competent men present themselves for admission. Very respectfully, your ob't serv't,

Wm. A. Hammond, *Surgeon-General.*

Analysis of Chocolate.—The following interesting notice has been gleaned from the French journals by Mr. William Procter, the accomplished editor of the *American Journal of Pharmacy*:—

"M. Alfred Mitscherlich has found in 100 parts of Guyaquil cacao, 45 to 49 per cent. of butter; 14 to 18 of starch; 0·34 glucose; 0·26 cane sugar; 5·8 cellulose; 3·5 to 5 coloring matter; 13 to 18 albuminoid matter; 1·2 to 1·5 theobromine; 3·5 ashes; 5·6 to 6·3 water. *The proportion of starch is very considerable*; it is a fact not to be overlooked by experts who find chocolate mixed with feculent substances. The coloring matter appears to be an altered product, because the fresh seeds are white. Theobromine is found in the shells of the cacao which contain one per cent. of their weight."

Potash from Wool.—M. Maumené, a French chemist, has recently showed that cold soft water would extract from sheep's wool a kind of greasy soap, a combination of certain fatty and oily acids with the alkali potash—the remarkable fact being that the potash was almost free from that far more abundant alkali, soda. By charring this soap, and then extracting the residue with water, very pure carbonate of potash is obtained. The process is carried out on a commercial scale at Rheims, in the department of the Marne, and samples of the various products there obtained—potassa and its salts—were shown in the International Exhibition.—*London Chemist and Druggist.*

The surgical corps of the Mass. Eye and Ear Infirmary has been increased, and Drs. G. Hay and H. Derby are elected Surgeons to the same, in addition to the gentlemen who already occupy the position.

In order to insert the whole of Dr. Smiley's valuable paper in this number of the Journal, our usual variety, including several communications, is omitted.

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, January 3d, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - -	40	43	83
Ave. mortality of corresponding weeks for ten years, 1853—1863,	40.3	38.6	78.9
Average corrected to increased population - - - -	00	00	86.88
Death of persons above 90 - - - - - - -	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
14	4	6	7	0	0	2	1

Deaths in Boston for the week ending Saturday noon, Jan. 3d, 83. Males, 40—Females, 43.—Accident, 1—anæmia, 1—apoplexy, 2—asthma, 1—disease of the bowels, 1—inflammation of the bowels, 1—congestion of the brain, 2—disease of the brain, 2—bronchitis, 2—catarrh, 1—chorea, 1—consumption, 14—convulsions, 2—croup, 4—diphtheria, 1—dropsy, 3—dropsy of the brain, 2—epilepsy, 2—scarlet fever, 6—typhoid fever, 2—hæmoptysis, 1—disease of the heart, 1—homicide, 1—infantile disease, 2—insanity, 1—disease of the liver, 1—congestion of the lungs, 3—inflammation of the lungs, 7—marasmus, 1—meningitis, 1—old age, 2—paralysis, 3—pertussis, 2—pleurisy, 1—puerperal disease, 1—suicide, 1—tumor (of the brain), 1—unknown, 2.

Under 5 years of age, 28—between 5 and 20 years, 11—between 20 and 40 years, 20—between 40 and 60 years, 14—above 60 years, 10. Born in the United States, 57—Ireland, 21—other places, 5.

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BREECH OF A GUN IMBEDDED IN THE BONES OF THE FACE EIGHT YEARS. REMOVAL. RECOVERY.

By James N. Fraser, M.D., St. John's, Newfoundland.

[Read before the Boston Society for Medical Improvement, January 12th, 1863, and communicated for the Boston Medical and Surgical Journal.]

On the 14th of October, 1848, William Roberts, of Brigus, Newfoundland, aged 30 years, by occupation a fisherman, of large frame and robust constitution, sustained, whilst at Labrador, a very serious injury of the face by the bursting of a gun. His nose and right cheek were severely cut and contused, and the whole face completely blackened. Violent inflammation, with great swelling, supervened, and he continued in a state of insensibility for three days. When restored to consciousness, he complained of excruciating pain in the face, which continued unabated for three weeks; and great noise in the head, which lasted for six months. Three weeks after the injury he arrived at Brigus, and then for the first time consulted a medical gentleman, who, however, from the inflamed and œdematous condition of the whole face, could not possibly form a decided opinion as to the precise nature of the injury. The patient was put under medical treatment, and was unable to leave the house until March, 1849, and was then only able to walk a short distance; a constant fœtid, purulent discharge escaped from the right cheek and nostril. In May, 1849, the wound in the cheek completely healed over, but the discharge continued from the nose. In June, he went to the summer fishery, but from his debilitated state could work but little.

The wound in the face remained closed until November, 1854, when an opening formed near the right ala nasi, through which a purulent discharge, with a quantity of powder and rust, escaped. On the 2d of January, 1855, he was suddenly seized with alarming hæmorrhage from the right nostril, the blood being quite florid, and escaping in a full stream, when another medical gentleman was sent for. The bleeding continued more or less from 1 until 4 o'clock, P.M., when it ceased, but recurred every eight or ten days, until April of the same year. Since then there has been little or no hæmorrhage.

During the whole of the foregoing period the patient suffered from severe headaches—sometimes complained of dimness of vision in the right eye, and occasionally of pain in that organ. The sense of smell was completely lost; his appetite varied, sometimes being very good, at other times extremely bad; he subsisted almost entirely on fluids; altogether his general health became seriously impaired.

In May, 1855, he came to reside in St. John's, and consulted several medical gentlemen, but obtained no relief. In August following, the pain in the face became much more intense than it had been since the occurrence of the accident. An abscess formed in the right cheek, and a copious discharge of purulent and serous matter, together with more powder and rust, followed; after which the pain only occurred occasionally.

He applied to me for advice on Tuesday, the 17th of June, 1856, stating that his face had been injured nearly eight years previously by the blasting of gun-powder, and made no mention of a gun having burst in his hands, until after the operation about to be described was performed. He informed me that he had undergone different kinds of treatment, and applied various remedies to the face, without deriving the slightest benefit therefrom. On examination, I found the right malar bone considerably enlarged, the right side of the face a little swollen, and a cloaca existed in the right cheek, situated nearly opposite the upper border of the ala nasi. Having passed a probe into this opening, I detected what I at first supposed to be a large piece of necrosed bone, which could be slightly moved. As he could not open his mouth more than a quarter of an inch, I failed in ascertaining the state of its interior. I examined the nasal cavity with the speculum, but discovered nothing abnormal.

As the man's health was rapidly giving way under the irritation and constant discharges to which he was subjected, I advised him to submit to an operation, to which he most willingly assented. On Thursday, the 19th of June, two days after I first saw him, I proceeded to operate, assisted by Dr. W. C. Simms. The patient having been put under the influence of chloroform, I made one incision from the upper border of the right ala nasi, extending across the cheek towards the prominence of the malar bone, and a second beginning at the commencement of the first, and extending downward towards the angle of the mouth, and retracted the flap thus formed, when it became obvious that the cause of so much suffering was not diseased bone, but *metal*. After considerable difficulty, I succeeded in extracting (what is almost incredible) the *breech of a gun!* the presence of which had never been suspected. The patient was only sensible of the last two or three efforts at extraction, and although there was no hæmorrhage of any consequence during the operation, we did not, during its latter part, induce complete anæsthesia, fearing that blood might find its way into the trachea, and cause suffocation.

The piece of metal weighed a little more than four ounces, and was quite oxidized. The transverse portion measured in length 1½ inches, in breadth ¾ of an inch at one part, and ½ an inch at its narrowest part—its thickest portion measured ⅝ of an inch. That portion of the breech which is screwed on to the stock measured in length 2⅝ inches, and in breadth ⅝ of an inch. The screw measured in circumference 2^7 inches.

It now only remains for me to state, so far as I can, the position occupied by this foreign substance, and the subsequent progress of the case.

The superior maxilla was evidently fractured over the antrum Highmori; the transverse portion of the breech with the greater part of the screw passing into that cavity, became embedded there; and a large opening was formed between the antrum and right nasal fossa. The long part of the breech, or that portion which is screwed on to the back of the stock, passed backwards between the under surface of the zygomatic arch and the coronoid process of the inferior maxilla, its edge resting on the alveolar processes of the superior maxilla, and its extremity extending nearly as far backwards, I imagine, as the lower part of the temporal surface of the great wing of the sphenoid bone; its edge, near the extremity, being in close contact with the external plate of the pterygoid process of that bone. Such, I think, must have been pretty nearly the position occupied by this singular intrusion.

No inflammation followed the operation, and since its performance the patient has been almost wholly free from pain.

On removing the breech the cavity appeared quite black, and for a few days a dark purulent discharge, together with small pieces of rust, escaped. Healthy granulations then sprang up, and the parts rapidly contracted. Now (July 4th) the cavity is nearly filled up, and the external wound almost closed. The action of the lower maxilla is slowly improving, and he has quite recovered the sense of smell. The only after-treatment consisted in the administration of one or two doses of aperient medicine; and the constant application to the sore of pledgets of lint moistened with cold water. In a few days the man will, I think, be quite able to resume his usual calling.

[In a letter from Dr. Fraser, recently received, he says:—I have little to add to the account of the case already in your possession. Ever since the operation the patient has continued in the enjoyment of excellent health; but suffers considerable inconvenience from the very limited action of the inferior maxilla. This, I imagine, was caused in the first instance by the position of the piece of metal confining the movements of the articulation; and subsequently by the inflammatory action, and consequent alteration in the structures of the joint. He suffers no pain whatever; and pursues his usual avocations uninterruptedly.]

At the meeting at which the above was read, Dr. JACKSON showed a cast in plaster of the foreign body that was sent some years ago to Dr. D. H. Storer, and that is now in the Cabinet of the Medical College. He also referred to a specimen that he had seen at the Fort Pitt Museum, Chatham, near London:—a cast of the breech and screw of a fowling-piece. The gun burst, and the piece was driven into the frontal sinus, where it remained for eight years; a portion of it, during the greater part of the time, protruding through the palate and into the mouth.

CASE OF CO-EXISTENCE OF CANCER AND TUBERCLE.

[Communicated for the Boston Medical and Surgical Journal.]

MR. EDITOR,—I read with much interest the article from the *Edinburgh Medical Journal*, re-published in yours of the 25th of December, on the co-existence of cancer and tubercle, and was somewhat surprised that any pathologist of the present day should maintain that the two diseases are mutually antagonistic, or exclusive of each other. Formerly it was contended that the morbid condition known under the term of "morbus cœruleus," or cyanosis, was incompatible with phthisis. I sent to the Boston Pathological Society a specimen of heart, in which there was a large opening from the right to the left ventricle, the subject of which had the *blue disease*, and died with tubercular phthisis at the age of 19 years. I was more surprised that the author of the above-mentioned paper had never met with a case where he was satisfied that cancer and tubercle co-existed in an active form; and though he does not deny that the two morbid conditions may occasionally co-exist, he says the question has not been satisfactorily solved. For this reason I am induced to send you an account of a case which came under my observation about one year since. I did not take notes of the case, as the patient was not under my care, and I only saw him once in consultation, but I will give the details from memory.

Mr. S., of South Hadley, aged about 46 years, desired my attendance in consultation with Dr. Lester, of that town. I found the patient sitting in a chair. Respiration was short and hurried; pulse 130, and feeble; very much emaciated. Coughed but little, and not much expectoration. There was considerable nausea, and some pain over the region of the stomach and bowels. The physical signs were peculiar, and calculated to deceive in forming a diagnosis. The chest was full, but no respiratory sounds could be heard on the left side, not even the tubular murmur. Percussion gave the dull sound everywhere over the left lung. On the right side, a little gurgling sound with bronchophony existed, as if the air did not penetrate into the lung, but was puffed out in a short, rapid manner. It was evident to me that the left lung was solidified, and that the right was full of crude tubercle. That was the clearest diagnosis I could make out at the time, with the opinion that the patient would live but a short time: and as I was not satisfied of the real nature of the disease, I desired Dr. Lester to procure an autopsy if possible. He had been, at intervals, in attendance for a space of about two years.

In about two weeks from the time I saw the patient, Dr. Lester desired me to attend the *post-mortem*. Both lungs were adherent to the pleura. The right had large masses of crude tubercle; some portions of the deposit were softened, but the greater part were of a curdy consistence. There was no distinct vomica connecting with a bronchial tube. The nature of the deposit could admit of no doubt. I removed a portion of it for future examination. In the left side, the whole cavity was filled with a hard, fibrous substance, portions of which cut with the cartilaginous or gritty feeling so peculiar to a scirrhous substance. On the top of this lung were found some small portions of tubercular deposit, similar to what was seen in the right lung; the scirrhous substance preserved somewhat the form of the lung. The heart was healthy, except that there were some adhesions of the pericardium to the sternum. The liver was normal. There was some tubercular deposit on the mucous surface of the intestines, and also in the glands. I regret exceedingly that no microscopic examinations were made, as I removed some of each portion of the morbid product with that view, but my professional engagements were so pressing that I neglected to examine them. I found, at the time of making the examination, that there was an hereditary tendency to both cancer and tubercle in this individual.

Holyoke, Dec. 29, 1862. A. Bryant Clarke.

NOTE ON THE CUMULATIVE ACTION OF MEDICINES.

By Alexander Fleming, M.D., Fellow of the Royal College of Physicians, London, &c.

In my lectures on therapeutics, I have found it useful to the student to describe three modes of exhibiting medicines, in relation to the interval between the doses: the *simple*, where the second dose is not given until the action of the first has completely subsided; the *sustained*, where the doses are repeated at such intervals as to keep up without increase or diminution the required degree of physiological action, as in the use of wine; and, thirdly, the *cumulative*.

Although the term cumulative action is much used, it is often wrongly applied, and its meaning is, at all times, vague and uncertain. It is commonly employed to denote the exhibition of a medicine for some days, in small and repeated doses, without marked effect, when suddenly and unexpectedly violent, and, it may be, dangerous symptoms of its action are developed. The successive doses are supposed to remain in some obscure and unexplained way quiescent in the blood, until the so-called cumulative action is manifested. The administration of digitalis and strychnia are cited as affording examples. It is said that digitalis may be given continuously for several days, and apparently without effect, when suddenly a feeble irregular pulse, fainting and cold sweats, usher in the poisonous action of the drug. In like manner, successive pills of strychnia may be taken and remain inert, when unexpectedly and suddenly severe tetanic symptoms supervene.

Now the sudden eruption of alarming symptoms during the continuous use of these medicines can be satisfactorily explained without reference to any mysterious agency. In the case of strychnia there is no cumulative action, but simply an example of the non-solution and retention of the medicine in the stomach and bowels. It is observed only when the medicine is given in pill. This alkaloid is hard of solution in the gastric fluid, and one, two, three or more pills are apt to remain undissolved and accumulate in the stomach or bowels. Suddenly, from some change in the patient, there is an abundant flow of gastric juice, and all the pills are simultaneously rendered soluble and active. This apparent cumulation of strychnia is never observed when it is given in solution. In the exhibition of digitalis, on the contrary, as I shall presently explain, we have an example of true cumulative action but imperfectly observed and understood.

I think it would be more correct to restrict the term *cumulation*, or *cumulative action*, to denote exclusively the gradual increase of physiological action from the successive exhibition of equal doses. When a second dose is given before the effects of the first have passed away, we add to what remains of the action of the first the full operation of the second, and so on with the third and subsequent doses until, finally, the sum of effects exceeds the limits of medicinal, and passes into those of poisonous, action.

In the exhibition of mercury, arsenic, aconite, digitalis, and other medicines, we adopt the cumulative mode, because it is safer and more efficient. The tolerance of these medicines varies so much that no physician can say what amount of any one of them is required to produce a given degree of physiological action. He might exceed the proper dose and cause danger. But by the cumulative addition of the effects of successive doses in the manner described, we advance cautiously and safely to the required degree of action, and the symptoms are more under control. The interval between the doses is determined in each medicine by the duration of its action. Between successive doses of mercury it may be twelve or even twenty-four hours, while, to secure the cumulative action of digitalis, it should not exceed four to eight hours. Our knowledge here is imperfect in respect to many drugs, and cannot be reduced to rules.

The cumulative mode of exhibition is most necessary with sedatives, as aconite and digitalis; and in using them the pulse must be carefully observed, for it is an important fact, in connection with sedation, that the circulation may be lowered to a remarkable degree without the patient being conscious of, or showing any material change in his other functions. But carry the depression just a little farther, and the heart's action is suddenly and seriously embarrassed, and the patient has fainting, cold sweats, and the sense of impending dissolution. Now, the early effects on the pulse of the cumulative depression of digitalis are apt to be overlooked, and the belief obtains, as already stated, that the first doses produce no effect whatever; but this is an error. I have often watched the cumulative use both of digitalis and of aconite, and have never failed to detect depression of the circulation from the early doses, and its subsequent gradual increase. I should add that, as a sedative, I am careful to give digitalis so as to secure its prompt and easy absorption, and to avoid its local irritant effect on the stomach, which complicates the general symptoms of the medicine.

On the other hand, in the administration of atropia and strychnia it is no less important to avoid cumulation. Their use often extends over a considerable time, and it is safer to use the *simple* mode of exhibition, and to give the doses at such intervals that the action of the first has entirely subsided before the second is taken. Nor is there any danger with these drugs in inducing the required degree of medicinal action with one dose, provided its amount be determined by careful trials, commencing with small and advancing gradually to larger doses. For example, I give atropia thus,—10 minims (containing $\frac{1}{65}$ of a grain) of a solution are exhibited once daily, and the dose is increased daily by 2 or 4 minims until I obtain the required degree of atropism. The action of one dose endures sixteen or eighteen hours, but ceases before the next is given and there is no cumulation, which it is safer to avoid, especially as the use of atropia is often continued for several weeks.

There is another order of physiological effects, sometimes named cumulative, which require notice here. They have been observed to follow the use of alcohol and aconite. I refer to the wakefulness, tremor, and exhaustion (delirium tremens), from prolonged excess, symptoms quite different from the ordinary stimulant and narcotic action of spirit, but distinctly traceable to its *continued use*. In the same manner, I have observed in patients who have been taking aconite in full doses for a lengthened period, that ultimately they have become affected with general tremors, severe pain in the head and eyeballs, constant lachrymation, intense photophobia, heat of skin, quick pulse and great restlessness, symptoms which, while very different from the ordinary sedative action of aconite, were clearly attributable to its long-continued employment. In the cases where I noticed these results, the aconite being discontinued, the symptoms, which were by no means alarming, subsided in a day or two.

Effects allied in nature to this action have also been traced to tobacco and to mercury.

In my lectures, to prevent the student confounding these effects with cumulation, I found it needful to distinguish them by the name of *sequel* action. At present the study of the sequel action of medicines does not offer much interest in the way of practical application; but it might at a future time acquire more importance. For example, one of the patients who exhibited the sequel action of aconite had been long a confirmed intermittent drunkard. From the time that he presented these symptoms the craving for spirit, previously so irresistible, never returned, and he continued to lead a sober life for at least four years while I knew him. Meantime it is well not to confound together things essentially distinct. The sequel action is due to the continued exhibition, and is a direct operation of the medicine, and must not itself be confounded with the symptoms which arise from the sudden suspension of a drug, such, for example, as opium, to which the body has become habituated. The extreme nervous prostration and excessive perspiration, urination and diarrhœa, which supervene on the sudden withdrawal of the habitual supply of this narcotic, are a good example of one of the forms of medicinal *reaction*. The cumulative and sequel actions are both phenomena of the forward, the reaction of the backward, swing of the physiological pendulum.

In relation to strychnia, I have already referred to the error of confounding true cumulative action with the accumulation of medicine in the bowels. This evil happens with solid medicines, as caustic magnesia, strychnia, and calomel, which require the intervention of the gastro-intestinal secretions for their solution and absorption. If the dose exceed the solvent power of the fluids, or these are deficient in quantity, then a portion of all the medicine remains undissolved, and is either expelled quickly by stool or lodges for a time in the bowels. If, while there, the visceral fluids become more abundant, it may be suddenly dissolved and by its absorption give rise to severe effects. I could cite many examples of this, but I have said enough to make evident the distinction between cumulation and the effects produced by the sudden solution and activity of a solid drug which has accumulated in the bowels.

ON NON-INTERFERENCE IN NATURAL LABOR.

By John Paterson, M.R.C.S.E., Aberdeen.

For a period of more than thirty years no obstetric fact has made a deeper impression on my mind than the effort which nature makes, under the most adverse circumstances, gradually and successfully to complete her work, so as to ensure the safety of the mother and infant. In no branch of the profession is this more to be observed than in midwifery. It is Nature's greatest work—*life;* and she is perhaps more jealous here than in any of her other operations, that it should be done well; and it always is so, unless when there is an error on the part of the mother, or when, as more frequently happens, it is impeded by the ignorance or dishonesty of an unprincipled and unskilful midwife or other medical practitioner.

In medical work generally, but particularly in midwifery, I have not always found that strict adherence to truth which might be expected in members of so learned and scientific a body as ours. In no profession ought this virtue to be more valued, especially where the life of a fellow-creature and the happiness of a family are so frequently involved. The young and inexperienced practitioner, naturally disposed to place implicit confidence in those possessed of more practical knowledge than himself, is not seldom deceived by the ignorant, who act and write but to serve selfish purposes; by the illiterate and presuming midwife, who knows no better; but oftener by the grasping and selfish practitioner, whose object is to hasten his case, save time, and thus add to the number of his fees and patients. I believe that the profession has yet to learn how frequently *art* is resorted to, wantonly and unnecessarily, by members high in practice, adding greatly to the mortality of mothers and children. Nature's plain, simple and safe laws are disregarded, and her lessons to wait, watch, and learn how far she can, unassisted by art, in almost every case, successfully accomplish her work, are often wilfully, nay, almost criminally, neglected.

There is no precept more deeply engraven on our obstetric literature by every writer of authority than this, that *prolonged labor, unaccompanied by dangers arising from other causes, is not a matter of almost any consequence, so far as the safety and permanent recovery of the mother is concerned*; and it has been an apophthegm from the days of Hippocrates till now, that meddlesome midwifery is bad.

Dr. Osborne—than whom we have no greater authority—states, while speaking of difficult and instrumental delivery, that he believes it is confirmed by general observation, that women recover at least as well after long, lingering and laborious labor—the duration of which may have been extended to some days—as after the easiest, quickest, and most natural delivery, and my experience leads me to the same conclusion.

In these remarks it is my object to show how far the mortality of mothers and children may be lessened by the course which I have been pursuing during a practice of nearly thirty-five years. It is short, plain, and simple; indeed, no great or useful work has ever been accomplished but by the simplest means, and never without much time, patience, and self sacrifice.

I think it is the duty of every accoucheur to visit his patient more frequently before and after her confinement than is generally done, to make himself intimate with her condition, former habits, and character, and even to become familiar with her peculiarities, for females are never without these, particularly during pregnancy and labor, and to lay down at every stage of pregnancy a clear and distinct course of hygiene, which he should take care to have strictly adhered to, not only up to the time of confinement, but for at least six weeks after it. He should examine personally the *bladder* and *rectum*, and see that they contain nothing that can be obstacles to the labor before its commencement. He should never permit the patient to think that her labor has really commenced till the *os uteri* is nearly the size of a crown-piece. He should have her as seldom in bed as possible, till the child's head is about to escape from the *uterus*. With his own hands he should place the infant at the breast the moment it is dressed, or, if possible, should not leave the apartment till he has seen this done. This is the only safeguard, nothing else will prevent danger from flooding. He must insist on the mother throwing off the afterbirth herself in the same way and by the same means that she bore her child; and if she tells him that she has no pains, he should ask her, at least within twenty minutes after the birth of the infant, to make them, and press down as in labor. I seldom or never put a finger on the *placenta* till it tumbles into my hands. All this must be done by the efforts of the mother alone. The contraction which naturally follows throws off the *placenta*, and if the child is applied immediately thereafter to the breast, the contractile powers of the *uterus* —another name for after-pains—are so much increased, that the *os uteri*, by these means, is effectively closed very soon after the birth of the infant. The *lochia*, from following this treatment, generally disappear in forty-eight hours, and no bad symptoms ever follow. Why should they? Is delivery not purely and simply a work of nature, the farthest possible from disease? It is the work of *life*, not of *death*. By disregarding these rules, and other apparently trifling precautions, the lying-in chamber has been made not only the abode of disease and death, but has, at the least, cut off every tenth married female by countless maladies, malignant and otherwise, within five years after the end of menstruation. In bringing off abortions I almost always do so successfully by the same means. I never poke for hours at the *os uteri*, producing often inflammation and ending in disease, from which the patient seldom or never thoroughly recovers. Impacted fæcal matter in the *rectum*, and a distended *bladder*, are, I believe, in ninety-nine cases out of the hundred, the causes of the loss of the child, and of resorting to instrumental labor, which but too often terminates in the death of the mother, or renders her miserable for life. If the duties I have indicated were properly attended to by the accoucheur himself, and the necessary time and patience were bestowed, what is called protracted labor would seldom be heard of, and most cases would end favorably, unless where there is deformity of the *pelvis*, or some other natural obstacle, which it is impossible to remove.

The following statistical data, derived from nearly three thousand cases, which I have arranged in a tabular form, will present to the reader, in the readiest and shortest way, some points well worthy of his serious attention:—

Presentations and Complications.	Number.	Children stillborn.	No. of mothers recovered.
Arm, - - - - - - - - -	7	5	All.
Feet, - - - - - - - - -	31	6	All.
Breech, - - - - - - - - -	42	10	All.
Retained placenta { with hæmorrhage, 7 without do. 9 }	16	0	All.
Twin births, - - - - - - - -	26	0	All.
Face to pubes, - - - - - - - -	21	2	All.
Face presented, - - - - - - - -	4	2	All.
Funis presentations, - - - - - - -	4	2	All.
Convulsions, - - - - - - - - -	1	1	All.
Protracted labor, - - - - - - -	14	0	All.
Out of which were, with forceps, 9; lever, 0.	9	5	All.

Deaths from independent causes—from phthisis, 5; from dysentery, 3; and other diseases, 9; total, 17.

Only 4 of these happened before the end of the first month, and 6 of the instrumental cases occurred during the first seven years of my practice. By strict attention to the bowels I have had no case of laceration of the perinæum for more than fifteen years.

In the foregoing table it will be seen that there is not recorded the death of a single mother in nearly 3000 cases of labor, unless where it arose from independent causes. Many of the parties were in the middle ranks of life, the wives of respectable workmen, and subject for years past, from the social condition of the country, arising from expensive living, and the difficulty of finding employment, and preserving their status in society, to perhaps more moral, emotional and physical causes injurious to health than at any former period in the history of the country. Considerably above a hundred may have been illegitimate cases, most of them connected with decent families, and such are always dangerous, tedious, and difficult to recover. Between three and four hundred were brought up in factories, and many of their parents before them. Among this class there is probably the largest amount of mortality, not excepting the highest circles, and much more than among the very lowest society, who have at least the open air and out-of-door exercise, and, for the most part, less care and anxiety than the class immediately above them. With such an amount of success as this table shows in an artificial state of society, and where nature's laws are so frequently broken, we can the more readily conceive how far nature will make her way under the most disadvantageous circumstances, and also with what ease the females of savage tribes perform this part of the work of nature, in almost as short a period, and with as little pain, as any of the other evacuations. These facts will, I trust, lead other members of the profession to record the results of their practice, if in any way favorable, or else cause them to pause and think whether this branch of our profession has received that attention, or had that justice done it, which, above all others, it so well deserves.

There is room for improvement at home, but more so on the Continent, where instruments are used in every fifth, tenth, fifteenth, or twentieth labor, under the charge of the medical men there, in order to expedite delivery. This is also done by many in this country, whose dangerous doctrines, inculcating the most unjustifiable and uncalled for interference, are injurious alike to mother and child, and are too often followed from the worst and most selfish purposes.

The late Dr. Joseph Clarke, of Dublin, who was one of the most amiable and upright members of the profession, moving in the highest circles, eminent in his position, who was characterized by a professional friend as a physician without guile, and whose useful life was closed by a Christian death, had, besides the charge of a large in-lying institution, 3862 private cases of midwifery, out of which he never lost a mother, and he had only one forceps case, which he failed in completing. If such was the practice of this great and good man, what must we think of those who are seldom weeks without instruments in their hands, and never go a distance from home without having them on their person. Surely there must be something radically, if not criminally wrong, in all this, which even demands some movement on the part of the legislature. The want of practical knowledge in the medical student is another source of the extensive evils from which mothers and children suffer so much during pregnancy and labor. He has never had the opportunity of obtaining anything but a small portion of knowledge in this department before entering into practice. The knowledge which students acquire at most of our schools is not of the kind suited to impart confidence, when, at the outset of their professional career, they are left entirely to their own resources. Not from any want of perseverance in their teachers, who are most indefatigable in their endeavors to procure cases, but partly from the want of a properly organized system, partly from the state of society in this country, the result is that the student is left almost entirely to himself in his search after practical knowledge in this branch of his profession. To pass an examination for M.D., or surgeon, attendance on a few cases of midwifery is all that is required. Hundreds of cases are not sufficient to enable the young practitioner to know when and how to hold his hand from doing mischief, or to give him the confidence sufficient to ensure the safety of his patient, even in a simple and natural labor. In the outset of his professional career, he is not therefore altogether to blame, if thrown on his own resources, with little or no practical knowledge, clinging to the theoretical opinions instilled into him by his teachers, without a guide, and with no clear practical data to fall back upon, wavering between what he has read in books, his class-room prelections, and his after-experience, he flounder on unsatisfactorily, and is never comfortable in his mind through a long professional life, and never learns to have a decided opinion of his own. A writer alluding to Dr. Clarke's practice, says, how seldom would practitioners be found to use instruments, if the successful course pursued by this eminent accoucheur were universally aimed at. Is it not worthy of our best consideration, with the invaluable statement before us, that in an extent of practice in the upper ranks of life, perhaps unexampled, there is not a single instance of death resulting from laborious or protracted labor.

In the course of a long professional life, of which the above remarks give a brief and imperfect retrospect, I have learned that neither talent however dazzling, nor genius though of the rarest kind, will alone lead to success in this branch of the profession. Extreme care and attention are necessary; patience unlimited; an almost perfect negation of time, of every selfish feeling and personal comfort, even health itself, must be conceded, before the greatest amount of success can be obtained. And thankful ought the humblest member of the profession to be that every upright and faithful practitioner has all these virtues in his own power, however slender his acquirements may otherwise be.

As for myself, after a long and rather laborious professional life, I am well content to admit that I am but a sorry instrumental operator. This, in my opinion, is the highest compliment that an accoucheur can receive; and I trust the time is not far distant when every member of the profession will deem it an honor to avow, not how often, but how seldom, through a long professional life, he has resorted to instrumental means.—*Ibid.*

Army Medical Intelligence.

Dr. A. B. Hall's Report on the Inspection of Recruits.

Surgeon-General Dale. BOSTON, DECEMBER 24, 1862.

DEAR SIR,—On the 7th of August last, I was detailed by you to examine, at the Meionaon, under the auspices of the War Committee of Ward 4, such volunteer recruits as might enlist to fill up the quotas of Massachusetts for the Army of the United States. Drs. J. A. Lamson and M. C. Greene were associated with me, by your authority, in the discharge of the official duties imposed on me. I have the honor now to report the results of our labors, together with such medical facts as seem to me of interest.

The period of our duties extended to within three or four days of three months. During this time there were examined 2,286 recruits who had enlisted for three years' service, and 1,672 for nine months' service: 384 of the three years' men were rejected, for some physical or mental inability, being a little less than 17 per cent., and 1,902 were accepted: 196 of the volunteers for nine months were rejected, or a little more than 11 per cent., and 1,472 were approved; making a total examined of 3,958, rejected 580. The responsibility of the examining surgeon is very great, as upon his decision rests the question whether the soldier entering the service of his country is a person of sound health, free from any abnormal condition; or one who will be soon the inmate of a hospital, from some local or constitutional infirmity, thereby becoming a positive expense and burden to the Government, instead of a positive good, in making up the sum total of its resources. In order that the examination might be critical, the applicants were required to divest themselves of their entire clothing. The candidates, as presented by the recruiting officers, may be divided into four classes.

1. Those who present a good exterior, and the rational and physical evidence of a normal condition of all the internal organs; and otherwise conform, in height and weight, to the requirements of the army regulations.

2. Those who exhibit some slight external defect, or some doubtful indication that there may be an obscure affection of one or more of the vital organs.

3. Those who are disabled, unqualifiedly, by reason of some defect in the senses, some chronic cutaneous affection, some striking deformity, or some internal organic lesion.

4. Those about whose habits, mental and moral condition, there may be a question.

The examination of the first and third classes is not difficult, and may be done often with rapidity. The second and fourth require frequently much time and tact, as well as judgment, to search and determine whether the bodily infirmities of the recruit are sufficient to cause his rejection, or his habits of life and moral bearing are such as to unfit him for discipline, or to be a proper person to associate with others in camp or on duty. The pernicious system of paying irresponsible agents a fixed sum per head for men who pass a medical examination, causes an undue pressure upon the surgeon, and he is importuned not to be too critical, as his severity or forbearance affects their pecuniary status. Hence the necessity of the surgeon conducting his examinations in a faithful and impartial manner.

The most prominent causes of disqualification which came under our notice, and which are not devoid of interest, in a medical point of view, were the following:—age, both too old and too young; height; deficiency or excess of weight; cataract; opacity of cornea; ptosis; loss of the eye; strabismus; myopia; deafness; loss of teeth; hare-lip; fissure of the palate; stammering; wry-neck; old fractures; permanent dislocation of humerus; anchylosis of shoulders, elbows, fingers, knees, or ankles; general rigidity of the joints: deformities from injuries of the arms, wrists, hands, fingers, thumbs, hips, ankles, feet; ununited fracture; loss of fore-fingers; loss of thumbs; loss of two or more phalanges; caries of elbow, femur and tibia; spinal curvature, with malformation of breast; splay-feet; toes crossing; inverted nails; wounds; atrophy of lower extremities; hernia, inguinal and femoral; hydrocele; varicocele; incontinence of urine; acute gonorrhœa; sarcocele; enlargement of the spermatic cord; hæmorrhoids; fistula in ano; primary and secondary syphilis; aneurism; varicose veins; scurvy; chronic ulcers of neck, legs, ankles, wrists, fingers and rectum; scabies; psoriasis; eczema; elephantiasis; deserters from English army, with the letter D branded upon the chest; want of muscular development; physical debility; paralysis; epilepsy; vertigo; rheumatic diathesis; lumbago; diarrhœa, chronic; pneumonia; hæmoptysis; chronic bronchitis; incipient phthisis; organic disease of the heart; intemperance; delirium tremens; insanity; effects of *coup de soleil;* no knowledge of English language; refusing to undress, &c. &c.

Such are the leading causes which were thought sufficient for the rejection of nearly 15 per cent. of those who applied for examination. The number rejected for each cause could be given if it was deemed essential. Many of the candidates who were judged disqualified were so from two or more infirmities, each of which was fully sufficient for their non-acceptance; but the most prominent one only was noted for record.

In the analysis of so large a number of physical ills, there are some interesting phenomena brought to view, which confirm many well-known pathological laws heretofore noticed. An allusion to a few instances will suffice. Cataract was found more frequent in the left eye than the right; so with opacity of the cornea. In loss of the globe, there were four cases of the right and nine of the left. Deafness was detected more decidedly on the left side than the right. Of sixty-two rejected for hernia, two thirds were ruptured on the left side. The same preponderance was true of varicocele. In fifty-eight cases of varicose veins, the veins were larger and more knotty and tortuous on the left leg than on the right. This infirmity was mostly met with among the laboring class, between the ages of 33 and 44. Chronic ulcers of the leg followed the same rule. On the other hand, anchylosis, deformities from injuries, &c., were more marked on the right extremities than on the left. Still the loss of fingers and thumbs on the left hand exceeded that of the right, except in the case of the forefinger of the right hand. Caries of bones was found more upon the right side, though the opposite was true of ulcerations.

It was apparent that the recruiting officers who were to receive commissions in the company they were mustering for the service, almost uniformly presented a better class of men, intellectually and physically, than agents whose interest did not extend beyond the reception of a surgeon's certificate for the recruit, showing that their interest only extended to the welfare of the pocket.

There were many instances of real outbursts of genuine patriotism, and an earnest desire to do something for their distracted country, which made it hard indeed for the surgeon to pronounce the word "rejected." As group after group of young men presented themselves, the tear of disappointment would often flow as the generous impulse of some one received the unwelcome tidings that he must be left behind. The same patriotic sentiment frequently showed itself among men of riper years. I well recollect one man of forty summers, who walked twenty miles the morning he enlisted, but, upon examination, exhibited a scrotal hernia of the size of a child's head; yet he thought it hard that he was not allowed to serve his country, when he could walk that distance without the least fatigue.

On behalf of my associates, I tender to the Committee of Ward 4 our thanks for the aid they rendered us in the discharge of our duties.

Respectfully submitted, ADINO B. HALL.

THE Paris correspondent of the London *Lancet*, under date of Sept. 9th, 1862, says that Dr. Cutter, of Woburn, Mass., was then in Paris, experimenting with his preparation of veratrum viride in the Hôtel Dieu and La Charité, where both MM. Trousseau and Piorry had placed patients at his disposal.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JANUARY 15, 1863.

THE CITY HOSPITAL.—One of the most responsible duties devolved upon the Municipal Government just inaugurated is the organization of this important institution. The hospital buildings are now so near completeness that steps are already being taken for the complete carrying out of the charitable purposes for which it has been so much needed. It has been a matter of unavailing remonstrance and regret to the friends of the project that the original admirable plan of the buildings, once adopted by the government, and generally supposed to be the final plan, was subsequently radically changed without any very evident sufficient reason, and another substituted in its place, which in the opinion of many competent judges is far inferior to the first, and in many ways inadequate to the objects which the other would have most satisfactorily met. These regrets, however, are unprofitable now, and enough remains in the structure, as it stands, to answer in many ways the great public need. The question now is, what sort of an institution shall it be?

This is a question about which very opposite opinions are held by different parties, and upon its decision depends the question of its usefulness or its utter failure. Let the unhappy fate of a neighboring institution be a warning to those who have it in charge, to administer the trust in their hands with wisdom.

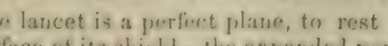
There has been a disposition from the time the project was first started, and among those too who were likely to have a good deal of influence in arranging a plan for carrying it on, to make it just what the city does *not* need, and exclude the class for which there is a very urgent necessity for hospital accommodations: to make it, in short, a copy, so far as possible, of the Massachusetts General Hospital. This idea has had a strong hold on some influential minds, and probably is still entertained to some extent. The late Mayor, several years since, while a member of the Board of Aldermen, made a report in which it was strongly urged that a hospital was needed where persons of limited means could be received on payment of a small sum for board. Much stress was laid on this point; and we felt it necessary to show at that time, in the pages of this JOURNAL and elsewhere, from positive data, that the opinion was an entirely erroneous one. Institutions already existing did at that time, and do now, fully meet the wants of this class of patients. On the other hand, it is obvious to every reflecting mind that a hospital which is the resort of a considerable number of paying boarders cannot and ought not to be open to all classes of patients. This would at once operate to exclude the paying ones. We need merely to mention such diseases as erysipelas, scarlatina and other contagious diseases, to make this point evident enough. Many persons enter the Massachusetts General Hospital every year to undergo important surgical operations, whose lives would be put in imminent peril were cases of erysipelas admitted also. And it was one of the admirable features of the original plan of the new hospital, that it was made up of a number of distinct pavilions, allowing of the most complete isolation of contagious cases and the consequent avoidance of all danger to the other inmates of the institution. This end cannot be so well attained in the structure which has been erected. Nevertheless, the want of a receptacle of just the cases we have mentioned, within the bounds of the city proper, is very great. Many a case of erysipelas have we seen in times past, shut up in small rooms in boarding houses, without ventilation or fire-places even, compelled to endure all the chances and discomforts of this grave disease, under circumstances most unfavorable for recovery, simply because there was no hospital to put them in. Many a case of scarlatina have we seen in the crowded houses of the poor, a whole family, with several children, sleeping in one miserable apartment, exposed to the contagion of this dire disease, their lives endangered and often sacrificed, for the want of some proper hospital to which cases might be transferred on its first outbreak. Neither has there been any hospital here where cases of syphilis could be treated. The want of a lying-in hospital has also been severely felt for several years, since the closure of the building originally constructed for the purpose on Springfield Street.

Such are a few of the cases for which hospital accommodation is greatly needed in Boston, but we have by no means mentioned them all. In a word, what is wanted is an alms-house hospital, to which all the sick who are sent to Deer Island and many others should be admitted. We sincerely hope this want may be appreciated by the gentlemen having this important matter in charge, and that it may be fully met, so far as the buildings as now constructed allow. Let us not have an institution which shall attempt a work of supererogation, and only stand as a monument of municipal folly and personal vanity.

NEW LANCETED PROBE. *Mr. Editor,*—A few weeks ago, Dr. Squire, Surgeon of one of the New York Regiments of Volunteers, and now Surgeon in charge of Locust Spring Hospital, sent to me the accompanying paper. Dr. Squire is an excellent and thoughtful surgeon. I hope that the profession will look at his simply-contrived instrument. At my desire, Mr. Metcalf has procured it from Mr. Tiemann.

Yours, HENRY I. BOWDITCH.

"In military surgery, suppurating sinuses in the areolar tissues, and abscesses between the muscles and around the bones, are of no unfrequent occurrence: and often the integrity of a part, or the safety of an individual even, depends upon the timely interference of the surgeon in making proper openings for the discharge of matter which might, otherwise, burrow and accumulate, and ultimately bring on hectic fever, diarrhœa, disorder of the stomach, pyæmia, and perhaps death. Usually, to make the necessary openings, the surgeon first finds the bottom of the abscess or sinus with a common probe, and then cuts, from without inwards, with a lancet or bistoury; but the operation may be more easily and satisfactorily performed by means of my new instrument, the *lanceted probe*, a representation of which is here given.



A, Hollow probe. B B, Lancet. C, Screw to regulate depth of incision.

One surface of the lancet is a perfect plane, to rest upon the corresponding plane surface of its shield—the expanded portion of the probe. The slender stem or handle of the lancet, for the distance of two inches from the blade, is flat; for the rest of the distance it is round. The lancet may be withdrawn from the probe at any time by unscrewing the button at the end, opposite the blade. The uses and advantages of the instrument will be apparent without further description. It may be curvilinear, instead of straight, if so desired. The instrument may be obtained of George Tiemann & Co., 63 Chatham St., New York, and also of T. Metcalf & Co., 39 Tremont St., Boston.

T. H. SQUIRE, *Locust Spring Hospital.*"

ARMY AMBULANCES. *Mr. Editor,*—In your comments on the note published in your issue of the 25th ult., you say:—"Our correspondent undoubtedly refers to the two-wheeled ambulance," &c.

Allow me to say I wished also to convey the idea that a wagon without springs might be better suited to the purpose than any two- or four-wheeled with them. This proposition may at first appear preposterous; yet with the aid of illustrations of the philosophy of motion, with which every child is familiar, I could easily prove that it is in the main correct.

In writing I can only say that a stretcher so drawn between the sides of a wagon body as to have no *swaying motion*, would give to the body resting upon it a "simple" motion, while its elasticity "softens" the jolting produced by the unevenness of the road. The addition of springs beneath the body of the wagon makes this a "compound" motion, and resting a part of the wagon body on the horse's back, as in the two-wheeled ambulance, "compounds" it into what may well be styled "torture" for a wounded man.

AN EX-SOUTHERN APOTHECARY.

RAINSFORD ISLAND HOSPITAL.—This is a Massachusetts State Hospital for sick paupers, and is situated on Rainsford Island in Boston Harbor. From the ninth Annual Report of the Inspectors and Superintendent we learn that the number of patients in hospital on October 1, 1861, was 165; admitted since, 494. Discharged during year, 462; died, 70; remaining September 30, 1862, 127. Total, 659. Number admitted since opening of hospital, 6,224. Of inmates admitted during year, there were born in Massachusetts, 92; other States, 74; abroad, 328. The considerable diminution in the number of patients is mainly to be attributed to the influence of military bounties and pay in increasing the income of very many families above that to which they were accustomed in times of peace. In their present improved circumstances, they escape many diseases to which they were previously subject, and, as a consequence, the decrease has been greater in the number of females than among the males admitted. It is pleasant to trace this result of the war, and sad to observe that its benefits do not extend to all poor women. Another curious instance of the effect of the war, is seen in the fact of the treatment of but 20 cases of delirium tremens during the year under report, against 41 cases in the previous year, an improvement which can scarcely be attributed to any other cause than the removal from civil life of many restless men, whose craving for alcoholic stimulants made them subjects for this disease and for hospital treatment. The enlistments for the war have also made it difficult to obtain the class of laborers on whom the hospital has usually relied for all out-of-door work beyond the daily routine, so that it has been impossible to carry out several plans for important improvements. On the other hand, many of the female patients have found pleasant and beneficial work in sewing, knitting, &c., for the Sanitary Commission, from time to time, the occupation being never continued beyond the limits of wholesome excitement and gratification. The expenditures of the year are stated at $21,576 11.

Health of Boston in 1862.—Dr. Jones, the City Physician, in his annual report refers to the fact of the general good health of the city during the past year, no epidemic or contagious disease having prevailed to any extent. Although threatened with smallpox in several wards at the beginning of the year, energetic efforts circumscribed its extent, and the deaths were few. Vaccinations during the year, 2,338; revaccinated, 303; physicians supplied with vaccine matter, 246.

The Port Physician reports that from Oct. 1 to Nov. 1, he boarded 2 ships, 21 barks, 35 brigs, 18 schooners, and 1 U. S. gunboat, making in all, under the order of June 16, 22 ships, 48 barks, 127 brigs, 78 schooners. Admitted to the hospital, 9 cases of smallpox, 4 of yellow fever, and 1 of intermittent fever. Two deaths occurred, both from smallpox.

Association for the Relief of Aged Indigent Females.—The thirteenth annual meeting of the above-named association was held lately in this city. The clerk submitted his report, from which we learn that the present number of inmates is 58; admitted during the year, 6; died, 3. From the Treasurer's report it appears that the expenditures for the year were $8,014 41; receipts, $11,590 01. Legacies received amount to $1,785; donations, $1,100; receipts for board, $3,229 94. The new building in process of erection in rear of the one now occupied, will be completed about the first of July, and will cost about $50,000.

Mortality of Providence, R. I., for 1862.—The annual report of Dr. Snow, City Registrar, shows the whole number of deaths in Providence last year to have been 914. In 1861 the number was 1051, and the average for the last six years has been 993. Of the deaths last year, 450 were males, 464 females; married 287, single 509, widows 80, widowers 38; born in the United States 687, Ireland 190, England and Scotland 29, Germany 1, other countries 7. During the first quarter of the year there were 197 deaths, second quarter 192, third quarter 271, fourth quarter 254. The deaths under 5 years of age numbered 331, between 80 and 90 years 32, between 90 and 100 years 9, over 100 years 1. Among the causes of death we notice—consumption 191, pneumonia 54, disease of the heart 49, cholera infantum 44, old age 41, dysentery 22, diarrhœa and croup (each) 31, fevers (all kinds) 21, cancer (all kinds) 20, diphtheria 17, scarlatina 14, apoplexy, hydrocephalus and disease of the liver (each) 19, smallpox 4, &c. The whole number of deaths for the year shows one death in 55·4 of the whole population: among the whites, one in 55·8; the colored, one in 45·2: among males, one in 53·1; females, one in 57·7. It also gives one death in every 7·2 dwelling houses of the city; one in every 11·1 families; one in 63·0 of the population of American parentage, and one in 47·8 of that of foreign parentage.

Relief to Sick Soldiers in Washington.—The Special Relief Agent of the Sanitary Commission, Mr. Frederick N. Knapp, in his fourth Report, gives the following statement of the number of soldiers received into the "Home," since it was first opened:—From Sept. 10th, 1861, to the present date, Dec. 15th, 1862: Total number of individual soldiers received, 14,106; total number of night's lodgings given, 36,866; total number of meals given, 81,760. Total cost to the Commission, $11,030 00; the average cost of each man being 91 cents.

The Medical and Surgical Reporter.—Our cotemporary has been compelled to yield to the force of circumstances embodied in the high price of paper at the present time, and announces that for the present it will appear only once in a fortnight, until better times shall warrant the heavy expense inseparable from a weekly issue.

Death of Dr. Jacob Harsen, of New York.—In the death of Dr. Harsen the profession of this city has lost one of its most philanthropic and public-spirited members. He had long been identified with the dispensary system in New York, and for many years was president of the Northern Dispensary. He had recently established a prize, known as the "Harsen Prize," consisting of $100, to be awarded to the best clinical report by a member of the medical staff of the New York Hospital. Being in the enjoyment of wealth he was able to give great efficiency to his efforts in any cause in which he became interested. His disease was cerebral.—*American Med. Times.*

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, January 10th, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week	47	29	76
Ave. mortality of corresponding weeks for ten years, 1853—1863,	41.1	36.1	72.2
Average corrected to increased population	00	00	85.12
Death of persons above 90	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
10	8	2	12	0	1	1	0

To Correspondents.—Dr. Brown's Surgical Cases and Dr. Bryan's Diary of a Brigade Surgeon have been received.

Books Received.—Clinical Lectures on the Diseases of Women, by J. Y. Simpson, M.D., F.R.S.E., Professor of Midwifery in the University of Edinburgh, &c. &c. Illustrated with one hundred and two Engravings on Wood. Philadelphia: Lea & Blanchard. 1863.

Married,—In Kennebunk, Me., Nov. 19th, Edwin Manley, M.D., of North Easton, Mass., to Miss Emeline L. Hatch, daughter of the late Capt. Joseph Hatch, of K.

Died,—In North Andover, Dec. 27th, Charles E. Akerman, M.D., formerly of Hampton Falls, N. H., 31.—In New York city, January 3d, Bern. Wheeler Budd, M.D., in the 70th year of his age.

Deaths in Boston for the week ending Saturday noon, Jan. 10th, 76. Males, 47—Females, 29.—Accident, 4—apoplexy, 3—inflammation of the bowels, 1—congestion of the brain, 1—bronchitis, 3—consumption, 10—convulsions, 2—croup, 8—cyanosis, 1—diarrhœa, 2—dropsy, 1—dropsy of the brain, 2—dysentery, 1—scarlet fever, 2—typhoid fever, 1—hæmoptysis, 1—hæmorrhage (from the navel), 1—disease of the heart, 2—infantile disease, 4—inflammation of the lungs, 12—marasmus, 2—old age, 1—peritonitis, 1—pleurisy, 1—sore throat, 1—teething, 1—tumor, 2—unknown, 4—whooping cough, 1.

Under 5 years of age, 38—between 5 and 20 years, 6—between 20 and 40 years, 14—between 40 and 60 years, 8—above 60 years, 10. Born in the United States, 59—Ireland, 12—other places, 5.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXVII. THURSDAY, JANUARY 22, 1863. No. 25.

SURGICAL CASES.

[Read before the Middlesex South District Medical Society, and communicated for the Boston Medical and Surgical Journal.]

BY FRANCIS H. BROWN, M.D., CAMBRIDGE.

WILLIAM CUBBON, 5th Regiment Michigan Vols., wounded at the battle of Fair Oaks, May 31st, 1862. Ball entered two inches above and to right of umbilicus; passed thence outward and downward, between the integument and peritoneum; exit just over crest of ilium, tract of ball being about five inches in length. On entering the hospital, the patient was very much prostrated; the wounds were very large, ragged and painful; the edges red and everted, and the surrounding parts tense and swollen. Frequent dressings were required in consequence of the profuse suppuration, and alternate stimulant and febrifuge remedies, according to the condition of the patient. On the eleventh day after the wound, several fragments of brass infantry buttons, bent and torn by the ball, were removed from near the wound of exit, having passed along the whole tract. After the separation of the slough, the patient very slowly revived, and only at the end of six weeks did he leave his bed.

In the process of contraction of the wounds, after the separation of the slough, in this case, as in a large number of others, when the edges of the wound became elevated, red and hard, with some pain, the patient received much relief, and the wounds were much improved, by rubbing well into the skin, for the space of an inch around the wound, a very small amount of simple cerate; not simply the external application of the same, but the thorough *inunction* of the skin was necessary. This softened the integument, brought down the elevation, reduced the pain and heat, and the next day the wound would be found considerably contracted. The cerate had the additional advantage of preventing the adhesion of the cloth, when renewing the dressings.

An interesting point in this case is, that, except to a very limited extent, the patient had no peritonitis, and no symptoms showing disturbance of the hepatic system. He left the hospital for a convalescent hospital, in order more fully to regain his strength, about September 1st.

J. O. Churchill, 11th Mass., wounded at Bristow Station, August 30th. On entering the hospital, thirty-six hours after receiving the wound, patient was found to have a longitudinal wound, two inches long, directly over the sacrum. On making an examination, a mass of metal was found just presenting at the depth of an inch below the surface, which, on being removed, was found to be a piece of rifled shell, measuring two and a half by one and a half inches, and weighing four ounces. This had been thoroughly impacted in the body of the sacrum, insomuch that considerable force was needed for its extraction. The wound was treated as most other gunshot wounds, were by cold-water dressing. On entering, he had passed no water since his wound, and his water was drawn once; but with this exception, and from this time, he had no disturbance of his urinary or alvine discharges, the bowels and the bladder working normally. The patient had at no time any paralysis, or any symptoms of concussion of the spinal column, a result the more to be wondered at, as the amount of penetration of the shell made it almost positive that the canal was opened and the filaments of the cauda equina must, to a certain extent, have been disturbed, though the fact of the absence of any serious disturbance of the functions would show that the nerve tissue was not bruised. The patient was kept in bed, and on his face, for a week; at the end of two weeks he could sit up, and at the end of a month was dressed and about the wards. He would soon be able to return to duty.

H. A. Durfee, 55th Ohio, wounded at Bull Run, August 30th. Ball entered on level with fifth lumbar vertebra, two inches to right of the median line, and was not found. From the date of his wound, the patient had entire paralysis of the nerves of motion and sensation of the left lower extremity; the right was moved as in health, and was normally sensitive to any stimulus. Two days after entrance, and six days after the wound, opisthotonos supervened, presenting in a very perfect manner the arch mentioned by writers on tetanus. This condition lasted, more or less marked, until his death. During the entire treatment, the patient passed his urine and fæces involuntarily, in bed. He stated that he knew when the urine was dribbling away, but of the fæcal discharges he had no knowledge. From his entrance, this patient gradually failed, never at any time recovering from the state of prostration in which he was first seen. He died Sept 12th.

This case was a very interesting one in life, but some points were brought out by the autopsy, which rendered intelligible the phenomena noticed in the progress of the case. The ball was found to have passed from its wound of entrance into, and pierced the upper sacral vertebra laterally, from right to left; it had passed nearly out from the bone, and was underlying the portion of the sacral plexus formed by the last lumbar and first sacral nerves going to supply the greater sciatic and pudic nerves and numerous branches to the muscles attached to the femur. Such a condition would of course account for the paralysis of the left lower extremity, and for the incontinence of the urine and fæces.

J. F. Henderson, 57th Penn., wounded at Fair Oaks, May 31st. Ball entered anterior surface of left arm, three inches below head of humerus; passed thence inside of humerus, through axilla, and made its escape just without and about the middle of the axillary border of the scapula; bone nowhere implicated. Cold-water dressing to both wounds.

June 17th.—Posterior wound entirely closed; anterior wound doing well.

19th (twentieth day after the injury).—Without unusual excitement, sudden hæmorrhage, to the amount of twelve ounces, took place from the anterior wound; controlled by pressure on the subclavian artery, and subsequently by tourniquet, with pad in axilla. General condition of patient good.

21st.—Tourniquet removed. Three hours later, renewed hæmorrhage, but in less amount. Tourniquet as before.

22d.—After consultation, the patient was etherized, and the subclavian artery tied just above the clavicle. The arm was well covered and perfect rest enjoined.

26th.—To this date the patient had been doing perfectly well; no hæmorrhage; the arm had maintained its normal heat; no untoward symptom had occurred. In the afternoon of this day he became suddenly very much excited; he was very irritable and desponding, and had the firm conviction that he should die very shortly. No chill or fever. Pulse entirely normal. No local pain or distress, and, in fact, nowhere any constitutional disturbance. He never recovered from this state of anxiety, but quietly sank and died on the 29th, at no time exhibiting any functional disturbance. Autopsy showed small pyæmic abscesses in different parts of the body.

Most writers on pyæmia speak of despondency, irritability and delirium as its concomitants, but I find no mention of these as the first symptoms of the disease. The absence of chill and other signs of general constitutional disturbance, was another marked feature of the case; but the man had been carefully watched, and no symptoms of such character could have escaped unnoticed. The occurrence of secondary hæmorrhage so late as the twentieth day, was still a third noticeable symptom in this case.

G. W. Bevelheimer, wounded at Centreville, Sept. 7th; admitted Sept. 14th. Ball entered over the inferior curved line of the occipital bone, two inches to left of median line; then passed forward, immediately below external meatus auditorius, and escaped by a large, lacerated wound in front of ear. At the end of three weeks from injury, the wounds were rapidly closing by granulation. At this date, however, hearing was entirely lost in the ear of that side, and in all probability would not return. This case is cited as another of that class where the ball passes in the immediate vicinity of an artery without doing it injury. Several similar cases occurred at the Judiciary Square Hospital during the summer. In this case, the external carotid artery, about at the point where it gives off the internal maxillary artery, was, on entrance, fully exposed, and its pulsation was plainly seen.

Joseph Murray, 109th Penn., wounded at Culpepper Court House, August 9th. Ball entered left side of nose, at lower edge of nasal bone; tract through right superior maxillary bone, and exit half way between angle and articulation of inferior bone on same side. No special sense disturbed. Paralysis of the inferior portion of the orbicularis oculi occurred, undoubtedly from severing of its supplying nerve, whether furnished by the infra-orbital nerve or the portio dura of the seventh pair. One week from injury this patient was about the ward, and, two weeks later, was transferred to convalescent hospital, as not needing further care. In the next bed to this man was—

W. H. Morgan, 61st Ohio, wounded at the battle of the Rappahannock, August 22d. In this case the ball entered the ridge of the nose, on a level with the lower edge of the nasal bone, passed through the right superior maxillary bone and out at the tragus of the right ear; the entire tract of the ball only varying from that in the last case by being moved half an inch to the right. This case also made a speedy recovery.

Joseph Parsons, 2d Maryland, wounded at Bull Run, August 29th; entered hospital September 3d. Ball entered the right temporal fossa, posterior to the articulation of the frontal and malar bones, passed into the orbit, behind the eye, through the intervening bones into the left orbit, and passed out between the lids of the left eye. On entrance, the globes of both eyes were destroyed; considerable pus was being discharged from both orbits; the sense of smell was impaired, but not entirely lost; general health of patient very good. He continued to improve during his stay in the hospital, the discharge from the orbits decreasing, the wound of entrance closing, and the general state of the constitution remaining good.

Oct. 4th.—A fragment of the malar bone was removed by the entrance wound.

The last three cases are cited as examples of the amount of injury which may be sustained by the bones of the face, without either permanent disturbance of any of the special senses, or any danger to life, these instances each presenting thorough *perforation* of the parts.

Many similar cases occurred at the Judiciary Square Hospital during the summer. In one, the ball perforated one malar bone at its centre, passed across and out at the opposite malar bone. Again, a ball entered the superior maxillary bone at the root of the left canine, and made its escape just in front of the ear. And still a third case, where the ball entered immediately below the malar bone of one side, and passed out through the eye of the opposite side. The great vascularity of the parts about the bones of the face, of course, accounts for the great recuperative power displayed.

Christopher Campbell, 35th New York, wounded at the battle of the Rappahannock, August 22d. Entrance of ball one inch above the symphysis pubis; exit through left greater sacro-ischiatic notch. At no time during treatment was there any trouble with bladder or bowels. The patient had passed his water shortly before the wound, and thus, probably, escaped perforation of the bladder. He had occasional tenderness in the lower part of the abdomen, but at no time any extensive peritonitis. The posterior wound soon closed, but the anterior remained open for some weeks, discharging laudable pus in decreasing amount. I have just learned (Jan. 7th) that he has recently been discharged from service on account of partial paralysis of left leg; otherwise recovered and doing well.

The above cases occurred at the Judiciary Square Hospital, erected in Washington after plans furnished by the Sanitary Commission nearly a year since, and one of the most satisfactory buildings used by Government for hospital purposes. Its construction and the hygienic circumstances under which the patients were placed, have already been spoken of by Dr. Cheever, in the JOURNAL of June 26th and October 30th, 1862.

In all these cases, as in most of those under treatment at the hospital, compresses, kept constantly wet, formed almost invariably the only dressing used. During the first stage of inflammation this is evidently the only course to pursue. Through the suppurative stage, the only change made was to thicken the compress and to give still more care to keeping it constantly wet. At this time, too, the water was frequently made slightly stimulant as well as detergent, by the admixture of a small proportion of tincture of myrrh or of liq. sodæ chlor. These preparations had the additional advantage of keeping off the flies, which swarmed about the suppurating wounds. In this stage, too, spongio-piline would be an admirable application, the only reason for its non-use being its absence from the list of supplies in the Army Regulations and its comparative cost. Poultices—so heartily deprecated by military surgeons, yet so valuable occasionally, and in their place—as far at least as the hospitals in Washington are concerned, are seldom used. Their only advantages, those of protecting the parts from the air and keeping them soft and of uniform temperature, are equally well supplied by the water, with the additional advantage, on the part of the water, of being clean and cheap and always at hand. These remarks do not apply to the carrot poultice, which, under certain circumstances, was productive of the most admirable results. In cases of deep, sluggish and painful wounds, the application of this poultice, during the suppurative stage, restored the discharge of pus, promoted the casting off of the slough, and raised the wound to its proper healthy tone; a result which the application of other simple or slightly stimulant poultices did not accomplish. During the stage of granulation, the water was in many cases still retained, giving place at times to some simple ointment, or alternating with it day by day.

DIARY OF A BRIGADE SURGEON, ATTACHED TO THE BURNSIDE EXPEDITION. By James Bryan, M.D.

[Continued from page 378.]

Saturday, March 22d, 1862.—Received from Dr. Cooper, a weekly report of the New Hampshire 6th, as follows:—Number in hospitals, 27; in quarters, 31—to which must be added 24 in the Brigade hospital. The cases in quarters are generally diarrhœa and dysentery; those in hospitals, typhoid fever. I amputated, to-day, the middle finger of the right hand at its junction with the metacarpus, of private ——, of the 89th New York, who accidentally shot himself while on guard last night.

Sunday, 23d.—Lieut. Marsh, Aid to Gen. Reno, arrived this afternoon in the Patuxet, bringing despatches from the expedition, together with a letter from Dr. Church. I received an order from Gen. Burnside to report at Headquarters. This day sent 122 convalescents from the different hospitals of the Island, on board the Phœnix, to proceed to Newbern, and join their respective regiments.

Monday, 24*th*.—Received from Dr. Humphries the following statement of the patients in his hospital:—Smallpox, 13, all recovering; severely wounded or sick, 41; sick in quarters, 68. Total, 122. Discharged, 34; remaining, 88. Also, from Dr. Squires, a statement of 128 sick and wounded. Dr. Smith, of the 89th N. Y., reports 48 in quarters, and 8 in hospital. Of these, one is a gun-shot wound of the shoulder, one an incised wound, penetrating the knee-joint, and one a bayonet wound.

Tuesday, 25*th*.—Went on board the steamer Patuxet for Hatteras, on our way to Newbern. I parted with the medical corps with regret, for our labors, though arduous, had been pleasant. The Senior Regimental Surgeon, Dr. Humphries, was appointed to succeed me. We arrived at Hatteras in the afternoon, where I landed, to look for letters from home. Gen. Williams had gone to the land of alligators. Surgeon Bache had also gone to Ship Island. Many vessels were lying about the swash, but the Island looked almost deserted. In passing down the Sound, I was much struck with the immense flocks of geese, which crossed our path, in regiments, apparently, brigades, battalions and divisions, always preceded by a long-necked leader. The wild ducks, and other water fowl, were also very abundant. We steamed out of the Sound towards evening, and, passing into the Neuse River, on

Wednesday, 26*th*, arrived at Newbern at 4 o'clock, P.M., in the midst of a drizzling rain. I slept at the Headquarters of the General commanding. The water of the Neuse, which is a magnificent river, is of the color of coffee, or very strong black tea, and is called cypress water, as it comes from the cypress swamps. It is highly esteemed by captains of vessels, as it purifies itself in a few days, when exposed in barrels to the atmosphere. We found that our horses, mules and other animals drank this swamp water with avidity. The soldiers, also, prefer it to the well water obtained along the coast—the latter, in most cases, being fœtid and abominable.

Thursday, 27*th*.—I am assigned to the charge of "Craven Street General Hospital," which includes the double hospital under the care of Drs. Kneeland and Batchelder, of Massachusetts, the Merchants' Bank Hospital of 60 beds, under Dr. Leonard, of New York, with the Odd Fellows' Hall Hospital, 60 beds, under the care of Dr. Lathrop. The total number of patients in these hospitals is at present 203.

Friday, 28*th*.—I have been all day organizing and arranging hospital affairs, and visiting patients, in consultation with the surgeons. The Provost Marshal has assigned me quarters in the elegant mansion of the late G. W. S., of this place, whose lady has retired to Goldsborough, and whose brother is a rebel officer, now at Fort Macon. I have succeeded in obtaining a full list of the names, regiments and diseases of my patients. Amputated (assisted by Drs. K., B. and L.) the middle finger of private ——, at the third joint: double flap operation. Chloroform was administered by Dr. K. A bullet had passed through the third phalanx, entered the palm of the hand, and made its exit an inch and a half above the wrist joint, leaving four wounds. In another case, a bullet had entered the breast above the right nipple, passed through the lung, and lodged in the back, near the edge of the scapula, just under the skin. A large abscess had formed, which allowed the bullet to float down two or three inches lower. I opened it from below, making a long, oblique, valvular incision, with a sharp-pointed bistoury. On opening the incision with a grooved director, about a pint of non-coagulated fœtid blood, mixed with air and pus, was discharged, much to the relief of the patient. This man was wounded at the battle of Newbern. (I must here venture a general remark on gun-shot wounds of the lungs. It is, that they are by no means necessarily fatal, but always dangerous, and the danger continues a good while after the apparent healing up of the wound. They should in no case be treated lightly; and muscular exertion of all kinds, except that which is necessary to life, should be strictly forbidden for a long time.)

Private —— was a case of gun-shot wound, in which a bullet passed through the left forearm, producing a comminuted fracture of the ulna, and tearing its artery. The wound has done tolerably well, until the day before yesterday (two weeks after its occurrence), when a free and dangerous hæmorrhage took place, from the orifices on both sides of the arm. This has recurred some three or four times, and been arrested only by pressure on the brachial artery, and plugging up the wounds with compressed sponge. Finding that no bleeding took place, on loosening the bandage around the arm, I proposed to Dr. K. to try the effects of moderate pressure, by means of broad unpadded splints and rollers, accompanied with elevation of the limb. The treatment was effectual, and the hæmorrhage was arrested for the time.

Sunday, 30th.—Hæmorrhage in the above case occurred again during last night, but was arrested by tightening the bandages.

Private —— was a curious case, the bullet entering the face (a Minié ball) just anterior to the ear, and passing through the posterior portion of the superior maxillary bone, was lodged on the hard palate or floor of the nose. The physiological effects of this wound are, first, Deafness of the right ear; second, Loss of sensibility of the cheek; third, Impaired vision of the right eye; fourth, Loss of smell, of right side; fifth, Difficult deglutition, and impaired utterance. The general health, including digestion, remains good. This wound was also received at the battle of Newbern. I dismissed the patient until evening, in order to obtain a probang from the Medical Purveyor, to explore the nasal cavities. When he returned, he brought the bullet in his hand, and stated that having lain down on his back to take a nap, he was suddenly aroused by the sensation of a heavy body falling into the back part of his throat. Promptly turning his head to one side, the bullet rolled out of his mouth. This man was sent home immediately, on furlough for thirty days.

[To be continued.]

IS PHTHISIS CONTAGIOUS?

By Amos Sawyer, M.D., Hillsboro', Illinois.

[Communicated for the Boston Medical and Surgical Journal.]

In your Journal under date of April 3d, 1862, I notice an article written by Dr. Comstock, entitled, "On the Prevention of Consumption," in which the writer advocates the hypothesis that this disease is contagious. Now although it is true, that phthisis was probably unknown in the New World, till brought from the Old, the aborigines not having it, till fetched hither by the British, and that since their intercourse cases have often appeared among them, yet all this, in my opinion, does not go to confirm the "Italian hypothesis that the disease is contagious." I for one must be considered as occupying the "opposition benches," and my reasons for so doing I will state as briefly as possible.

Having emigrated from Boston, Mass., some twenty years ago, when this portion of the country was comparatively a wilderness, I found that consumption was almost unknown. Occasionally I met with a case, but it *invariably* occurred in *Eastern* emigrants, who, finding the seeds of that dread monster implanted in their systems, fled to the West, hoping to be benefited, if not radically cured, by breathing the pure air of our prairies.

From 1842 until 1852, I do not remember an instance in which this disease appeared in a native; but since the latter date it has alike attacked the native and the foreigner. Now I hear you ask, how do you account for this, unless it be caused by contagion? I will tell you. Twenty years ago the inhabitants of this portion of the State (who mostly emigrated from Kentucky, Tennessee and North Carolina), lived, summer and winter, almost altogether upon *fat* "side meat" and corn bread; they would eat, daily, from one quarter to one half pound clear fat bacon, and from three to four ounces of gravy, which when eaten with bread they termed "sop." To be sure game formed a share of their diet, but it was abundant, and they disdained to kill or eat anything unless it was *fat*. Now remember, during this time I never met with a case of phthisis pulmonalis in these fat-eaters. But in the last ten years there has been a most remarkable change in the diet of these same people. They now eat more fresh lean meat, as mutton, beef, &c.; which is caused by the advance in the price of their pork. Twenty years ago this was worth one and a half cents per pound, making it the cheapest living they could procure; while for the last ten years it has ranged from four to eight cents per pound, making it the most profitable of farm productions; so that they cannot afford to live upon it so exclusively as in former years. Consequent on this change of diet, we find that consumption is spreading with the most fearful rapidity. Such, at least, is my opinion, based, as it is, on *personal* observation.

It is certainly well known that "Russia is almost entirely free from phthisis pulmonalis"; but I cannot admit that the credit of this is due entirely to warm clothing, although this is a valuable adjunct. Is the Russian, with his furs, dressed warmer than the Englishman, or American, with their garments of cloth, when we take into consideration the difference of their respective climates? I think not. The exemption is undoubtedly due more to the diet, which, if I mistake not, consists in a *large proportion of fat*.

We are informed by Dr. Kane, that consumption, as well as the scrofulous diathesis, is unknown among the Esquimaux; and their food, we know, is almost entirely of an oleaginous character.

It is well known that *Eastern* people oppose having animal oils form a part of their daily food, "as it is too gross, and was never intended to be eaten."

Here, then, we have two classes of people—the fat-eaters and anti-fat eaters; in the former we find entire absence of phthisis pulmonalis, in the latter it is discouragingly on the increase.

It is indisputable that *oil* is almost the only remedy that has succeeded in arresting pulmonary phthisis; and therefore it is reasonable to suppose that it will act as a preventive, if we permit it to form a small portion of our daily food. That a deficiency of the oleaginous matters tends to the development of the scrofulous diathesis, is a common opinion.

Let us take, for example, an individual who excludes animal oil from his diet, and examine his case from a physiological point of view. We find that nature is short of fuel, and therefore makes requisition upon other substances; consequently the albuminous group, which is the material for the nutrition and re-formation of the tissues, must be converted into hydro-carbonaceous matters adapted for combustion, and of course the demand for histogenic material cannot be but imperfectly supplied. The blood is therefore impoverished, and becomes incapable of supplying the nutritive functions sufficiently; as a consequence, we see the tuberculous diathesis, and emaciation and death must sooner or later ensue.

It may be asked, why is it that, in this disease, the lungs are more frequently attacked than other organs? I answer, because they are more subject to slight inflammations, as evinced by frequent catarrh; and in repairing the loss consequent upon said inflammation, the blood, from loss of its *histogenic* material, contains a plastic, or cacoplastic substance, deposits the same in the form of the grey or crude tubercle, which after said deposition will, unless expelled, act as a foreign body, producing a further increase of the same material, ultimately terminating in the destruction of the organ.

I would not be understood as advocating a purely "heat-producing diet," but contend there should be a difference in the quality of the summer and winter food, which should be farinaceous in the former, oleaginous in the latter. By adopting this rule, I feel confident we will have a decrease in phthisical patients, as well as a diminution of bilious diseases in the fall.

The fact that consumption made its appearance among the Indians since their association with the whites, is to my mind no proof that it is contagious; as their diet, in common with many other circumstances, was changed thereby. Before the Europeans settled among them, they had an abundance of corn and game; the latter (as any person acquainted with the dietetic habits of the Red Man well knows) they will not, unless forced by the pangs of hunger, kill, or eat unless *fat*. Now as their hunting grounds became settled by the white man, his mode of life had the effect of driving away the game; also the exterminating wars waged against them caused a scarcity of corn (which is good fuel), and thus they were driven to partake of that quality of food which contained but little oil. Hence the appearance of phthisis.

THERE were registered in Scotland during the quarter ending 30th September, 4,558 marriages, being in the annual proportion of 59 in every 10,000 of the population, showing no diminution from the average proportion of former years, and indicating that the general prosperity of the country has not suffered from the American war.

Bibliographical Notices.

A Manual of Medical Diagnosis: being an Analysis of the Signs and Symptoms of Disease. By A. W. Barclay, M.D., Cantab. & Edin., Fellow of the Royal College of Physicians, Assistant Physician to St. George's Hospital, &c. &c. Second American from the Second and Revised London Edition. 8vo. Pp. 451. Philadelphia: Blanchard & Lea. 1862.

This is a most excellent work, which we have too long neglected to notice. In England two editions of it have appeared in successive years. It was originally prepared by the author as a help to medical students in the investigation of the cases that might come under their observation in the wards of hospitals and elsewhere, and we may add its usefulness is by no means limited to this special class, but it will be found a most valuable companion to the practitioner in active practice. The author has had peculiar opportunities for the preparation of such a work, having, while holding the office of Medical Registrar of St. George's Hospital, had an opportunity of carefully examining more than twelve thousand patients, and of verifying his diagnosis in many of the fatal cases. The Introduction and first three Chapters are devoted to a general discussion of the province of diagnosis, its methods, the duration and sequence of phenomena, and the general condition of the patient: the remaining thirty-two chapters treat in turn of all the principal diseases which flesh is heir to. The nosology of the work is most excellent, and the distinctive features of each disease are given in a remarkably graphic and interesting manner. In fine, we may say that it makes a most excellent text-book for the use of students, to fix definitely in their minds the outlines and characteristic features of disease, while it ought to be on the table of every practitioner who desires to keep fresh before him the details necessary for a precise and scientific diagnosis. A copious index adds much to the practical value of the work.

Clinical Lectures on Diseases of Women. By J. Y. Simpson, M.D., F.R.S.E., Professor of Midwifery in the University of Edinburgh, &c. &c. Illustrated with one hundred and two Engravings on Wood. 8vo. Pp. 510. Philadelphia: Blanchard & Lea.

This is a reprint of Prof. Simpson's lectures as they appeared in the London *Medical Times and Gazette*, during the years 1859, 1860 and 1861. The publishers have done a good work in thus collecting in a form to be generally available so much matter of such great practical value from this great leading mind in the profession of the present day. The subjects of Vesico-vaginal Fistula, Cancer of the Uterus, Pelvic Cellulitis, Pelvic Haematoma, Ovarian Dropsy and Puerperal Mania are very fully treated in this volume, while other more common affections are not neglected. Prof. Simpson's name alone is enough to command the attention of the profession, who will regard this volume as a most valuable contribution to the store of professional knowledge.

Army Medical Intelligence.

To the Surgeon-General. NEWBERN, N. C., Jan. 1st, 1863.

DEAR SIR,—I send you a statement of the present condition of the 24th Regiment, Mass. Vols., and of the loss it has sustained by discharges and deaths, during the last year. The average number of patients in regimental hospital for December, was 19; and of the sick in quarters, 80. Of the latter, diarrhœa, coughs, rheumatic pains and chills furnish a large proportion. Many of them are obstinate, and do not yield readily to treatment. The men are now comfortably housed in spacious barracks, which have been erected on our camp ground, on the banks of the Neuse.

During the year past there have been 101 discharges from the regiment, as follows:—For disability, 58; to accept commissions, 11; by sentence of general court martial, 3; by order of War Department, 29.

Of those discharged for disability, the certificates were prepared by Dr. Curtis or myself in 45 cases, for the following causes:—Rheumatism, 7; hernia, 6; chronic diarrhœa, 4; general debility, 4; epilepsy, 3; disease of the heart, 3; asthma, cystitis, phthisis, varicocele, wounds received in action, and deafness, 2 each; and synovitis, ascites, varicose veins, paralysis, absence of teeth [adontia?] and intermittent fever, 1 each. In the other 13 cases, the papers were made out by surgeons in charge of General Hospitals, or at the North, and include for the most part sick and wounded soldiers, who went home on furlough. Among those discharged to receive commissions was Dr. John H. McGregor, our late Hospital Steward, who is now Assistant Surgeon in the 12th Massachusetts Volunteers, a promotion he well merited. The band is included among those discharged by order of the War Department.

The number of deaths for the year is as follows:—From disease, 42; killed in action, 19; from wounds received in action, 4; by drowning, 1; by accidental shooting, 1. Total, 67. Of the 42 mentioned first, 26 died in the regimental hospital, of the following diseases:—typhoid fever, 13; chronic diarrhœa, congestive fever, remittent fever and dysentery, 2 each; and rheumatism, pneumonia, peritonitis, diphtheria and pericarditis, 1 each. The other cases took place either in General Hospitals, or at Washington, N. C., where two companies of our regiment were stationed last summer, which was a very sickly season at that place. For military purposes it was necessary to cut down a great many trees, which were allowed to remain as they fell, near the village. This fact doubtless had some connection with the endemic, which attacked citizens as well as soldiers. Company D—one of the two companies—lost seven men from miasmatic fever. The present condition of the regiment is good. To-day there are reported in hospital and quarters 101 sick and wounded men. Most of these cases are very trivial—in fact, we have none seriously ill at the present time.

Dr. Curtis is still separated from the regiment, being attached to the Foster General Hospital. Everybody speaks highly of his administration of affairs at Portsmouth, where he was not only Surgeon-in-Chief of the Hospital, but Military Governor of the Island.

With much respect, I am, Sir, your obedient servant,

SAMUEL A. GREEN, *Surg. 24th Mass. Vols.*

To the Surgeon-General.

HEADQUARTERS 51ST REG'T MASS. M.,
NEWBERN, N. C., Dec. 26th, 1862.

SIR,— * * * * * * * The 51st has just returned from the late expedition into the interior, and, as is usual with men unaccustomed to a march, the men suffered considerably from sore feet and kindred complaints, but most fortunately there were but two gun-shot wounds, and those from spent balls.

There are quite a number of cases of diarrhœa and dysentery, while parotitis seems to prevail as an epidemic. We have had about *two hundred* at morning call, but the number is now rapidly decreasing. Affairs in my department are rapidly assuming a more satisfactory character than at my first appearance.

I regret to say that a large number of persons, wholly unfitted for service, have found their way into the regiment, accepted the large bounties, and now beg to be discharged. Among this number I find five or six cases of hernia, two or three of varicose veins of long standing, of organic disease of heart, and one so deaf that he cannot hear it thunder, and also has lost *all his teeth* in the upper jaw, by reason of chronic neuralgia of seven years' standing. Another has a withered hand from destruction of the ulnar nerve, having had his arm half sawed off; his arm had also been broken and improperly set; he had a bad fracture of the clavicle; also a *tape worm*. I made up a list of *nineteen* unfit for service, mainly disabilities acquired before entering the army. These facts are a disgrace to the service, and the medical officers who passed them.

I am happy to find myself very pleasantly situated—could not be more so. The weather is delightfully mild and pleasant. Many of the men bathe in the Trent, upon whose bank our regiment is encamped. I remain most respectfully yours,

GEORGE JEWETT, *Surgeon 51st Mass. M.*

To the Surgeon-General. CAMP RICHMOND, NEWBERN, N. C., Dec. 26th, 1862.

SIR,—I wish you a happy new year, and hope that the natal day of 1863 will find you in good health and in the enjoyment of Massachusetts blessings, and I am sure that they are neither few nor small.

I thought that perhaps you would like to know something of the condition and prospects of the Third Mass. Vol. Militia, and will therefore act upon that supposition.

You are undoubtedly aware that we have but recently returned from an expedition into the heart of the enemy's country, and I may add a "successful expedition," having fulfilled the objects of our mission. The troops under General Foster behaved nobly; the sons of the old Bay State added still more to her glory and fame. Where all did so well, it is hard to particularize, but still I feel compelled to speak of the gallantry of the 3d regiment. For the first time under fire, and in a very trying and critical position, they showed the coolness and promptness of veteran soldiers, obeying every order with alacrity and steadiness. All honor to the brave Third!

Our casualties (thanks to a kind Providence), during the expedition, were very few indeed—none killed and but three wounded, two slightly and one severely. Dieblitch was struck by a piece of shell on the leg. On examination, I found that the upper part of the tibia and fibula and the lower part of the femur were fractured, and a large portion of the muscles of the leg carried away; also that the popliteal artery was destroyed—of course making amputation imperative. I was therefore compelled to operate at the lower third of the thigh, which I did under fire. The Medical Director allowed me thirty minutes to do the operation and get my patient into an ambulance, as we were very much exposed to shot and shell. I was on time, and had everything properly secured, using extra precaution to prevent bleeding on the road. He was taken 60 miles in the ambulance to Kinston, and there put on board a steamer for Newbern, where he arrived with the stump in excellent condition, and is now doing well; in fact it is the model stump in the Stanley Hospital, the largest hospital in Newbern.

I have been thus particular in detailing his case, from the fact that it is only one of many which are constantly occurring, showing under what unfavorable circumstances military surgeons have to act.

The present sanitary condition of the regiment is very satisfactory indeed, and is much superior to that of the regiments in our immediate vicinity, the 44th and 46th. Yours, &c.,

A. A. Stocker, *Surg. 3d Reg't M. V. M.*

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JANUARY 22, 1863.

Nitrous Oxide; Its Medical Properties and Applications.—The following communication relates to a very interesting subject, and we hope the agent recommended may have a fair trial. Dr. Shumard, whose experiments were mentioned in the article recently printed in our pages, is, we see, publishing a fuller account of them in the New York *Medical Times*. There seems no reason to doubt that an agent of so much power as the protoxide of nitrogen, when inhaled, should exert a decided influence on the economy when introduced in a form likely to make its retention in the system more lasting. The aqueous solution has been employed in Asiatic cholera, and it is said with very decided advantage. Water takes up about three fourths of its bulk of this gas, but under pressure can be made to dissolve much more. The adynamic forms of disease have prevailed so extensively among our troops that the government hospitals offer a most admirable opportunity for experimenting with this agent on a large scale It would seem to be innocuous, at any rate, and the question of its value may therefore be very easily brought to a final test.

Mr. Editor,—In the last number of your excellent Journal you give extracts from a Cincinnati paper, relative to some therapeutical applications of nitrous oxide, which the writer seems to think are new and original with himself. But such is not the case, as the evidence there presented of the efficacy of the protoxide of nitrogen in certain fevers is only confirmatory of the facts and views upon the subject of the peculiar properties and valuable medicinal applications of this remarkable agent, long since and repeatedly advanced by myself in your own pages as well as elsewhere. I have there shown that nitrous oxide possesses powerful hæmatic, neurotic, exhilarant and other characteristic properties, and that it is applicable to the treatment of numerous and diversified disorders of the animal economy. Also, that it is especially indicated not only in typhus, but likewise in intermittent, congestive, yellow, and all other ataxic fevers, as well as in adynamic states generally. Moreover, that the peculiar constitution, characteristic properties and extensive range of therapeutic application, render the nitrous oxide one of the most valuable remedial agents known. In brief, as I have before stated, my own observations, experiments and experience have taught me that the protoxide of nitrogen, or laughing gas, is a direct, potent and permanent chemico-organic, arterial, nervous, cerebral and general stimulant, diuretic, aphrodisiac and antitoxic; and is thus a valuable hæmatic, neurotic, tonic, secernent, resolvent, alterative, antidote, antiseptic, &c. &c.

The nitrous oxide may be administered either in its gaseous state immediately by the lungs, or be combined with some liquid and thus introduced through the alimentary canal. For obvious reasons, water is the most eligible vehicle for the purpose, and when surcharged with protoxide of nitrogen forms a very convenient and not unpleasant preparation. The addition of aromatic and other compatible agents makes it a very palatable and agreeable beverage.*

But as I did not intend to enlarge at present upon this subject, I will, in conclusion, refer those interested to the more specific detail of the medical properties and applications of nitrous oxide presented in my previous articles in your Journal. These are respectively entitled—Toxicological, but which should have been, Antidotal Applications of Nitrous Oxide, Vol. XLVI., No. 14: Anæmatosis, its Consequences, Prevention and Treatment, Vol. XLVI., Nos. 22 and 23; Experimental Investigations on the Antidotal and Revivifying Properties of Nitrous Oxide, Vol. XLVII., No. 19; Hæmatosis, its Natural and Artificial Induction, Vol. XLIX., Nos. 3, 4, 5 and 6; Glucosis, Vol. L., No. 11.

In the hope these brief remarks may serve more particularly to concentrate attention upon an agent of superior medicinal value, I am

Very respectfully yours, Geo. J. Ziegler, M.D.
Philadelphia, January 10th, 1863.

The late Dr. S. Foster Haven, Jr.—We have received the following communications relating to the lamented decease at Fredericksburg of the late Dr. Haven. It was our privilege to have made his acquaintance while he was studying his profession in Boston, and we had an opportunity of appreciating his worth while he was serving as house-pupil at the Massachusetts General Hospital. All who knew him will cordially unite in the sentiments expressed in the resolutions:—

Died, at Fredericksburg, Va., Dec. 13th, 1862, Samuel Foster Haven, Jr., M.D.

Dr. Haven was born in Dedham, Mass., May 20th, 1831. He graduated at Harvard College in 1852. He applied himself assiduously to the study of his profession, both in this country and in Europe, and became a member of the Massachusetts Medical Society in 1855.

Early in the commencement of the present war, he was attached to the staff of the 15th Regiment Mass. Vols., as Assistant Surgeon, and afterwards was promoted to be its Surgeon. The exemplary manner in which he devoted himself to the discharge of his duties won for him the esteem of both officers and men. His heroic death is thus mentioned in a private letter from his superior medical officer:—

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* The nitrous oxide water is prepared and sold by S. A. Lancaster, Pharmaceutist, Arch and 10th Sts., Philadelphia.

"Witnessing his self-exposure at the battle of Antietam, I had, as Medical Director of the 2d Division, detailed Surgeon Haven, in a written order, in the event of a battle, to repair to the Division Hospital, and give his services there, instead of in the field with his regiment. When I communicated this order to him, he evidently felt disappointment. He expressed a strong choice to go wherever his regiment went; and when the column, to which the 15th Mass. was attached, was about to pass over the bridge in front of Fredericksburg, he was expostulated with, and reminded of the previous order. But he asked, as a special favor, to be allowed to go with his regiment; and said, as soon as the fight was over, he would return to the hospital and remain there. He went forward, and when a few yards up the street, to which the bridge led, was stricken by a shell from the enemy's batteries, which put an end to his valuable life in two hours." S. H. H.

Mr. Editor,—In conformity with a vote of the Worcester Association for Medical Improvement, I forward you, for insertion in the Boston Medical and Surgical Journal, a copy of resolutions which were unanimously adopted at the last meeting.

Dr. Haven was Surgeon of the 15th Regiment Mass. Vols., and died at Fredericksburg, Va., Dec. 13th, 1862, of wounds received in the severe battle of that memorable day.

Thomas H. Gage, *Secretary.*

Resolved, That in the untimely death of Dr. S. Foster Haven, Jr., this Association is called to lament the loss of a member whose large scientific attainments, dignified bearing, and brave fidelity to duty, gave highest promise of professional eminence and public usefulness.

Resolved, That in his pure and blameless life, elevated social intercourse, unostentatious benevolence, and scrupulous regard for the rights and feelings of others, we recognize convincing evidence of the refining and ennobling influences of moral and religious culture.

Resolved, That to his bereaved parent, our honored fellow-citizen, we proffer most sincere and cordial sympathy in this great and overwhelming affliction; assuring him that the memory of the deceased will remain with us in perpetual freshness, and be cherished with fraternal regard.

Mr. Editor,—In your issue of Dec. 25th, quoting from Dr. Andrews, 1st Illinois Light Artillery, relative to amputations after the battle of Corinth, Miss., it is said, "Of all thighs amputated below or at the middle, four fifths were alive and doing finely on the tenth day, when last heard from. This was among the Union troops. Among the wounded Secesh who fell into our hands the same rule was also adopted, but the result was exactly reversed. *Four fifths of similar cases among them died* before the tenth day." And further: "There may also be a natural difference in their power of endurance," &c.

Observations made during a residence of two or three years in Mississippi convinced me that disordered action, as well as that of remedial agents, was far more energetic there than in the North. This difference was apparently attributable to the same causes that stir the passions and send the "hot blood" to the temples with such fiery violence: causes not always found in the intoxicating cup, for while I adhered rigidly to cold water, even at meal times, the stimulating influence of the climate was unmistakably perceptible in the glow that with each respiration of the fresh morning air was tingling even in one's finger ends. The quantities of medicine required to produce a given effect on a person fresh from the North were often, perhaps always, smaller than would be requisite for those long resident in the South, or even those same persons from the North after the second year.

Thus it will be seen that, other circumstances being equal, a more rapid and energetic treatment will be necessary with Southern than with Northern patients to ensure success: and should our surgeons give sufficient attention to this point, I doubt not they will find the failure in the case described above was due as much to the lapse of time between the wounding of the secesh and the amputating their limbs, as to any peculiarity in the mode of operating or of the subjects themselves: for whatever may be said of the powers of endurance in the two classes, the causes I have described would carry the Southerner through a given amount of pain and suffering, or a certain progress of symptoms, in a much shorter time than would be the case with the more cool, less excitable Northerner.

Yours very respectfully, AN EX-SOUTHERN APOTHECARY.

FROM A REPORT OF FIFTY-SEVEN CASES OF AMPUTATIONS, in the Hospitals near Sharpsburg, Md., after the battle of Antietam, by G. J. Fisher, M.D., of Sing Sing, N. Y., published in the *American Journal of the Medical Sciences* for January, 1863, we take the following summary:—

"The whole number of cases of amputations, given in the above tables, is fifty-seven: the mortality, including two cases where the prognosis is noted as doubtful, amounts to eleven, the percentage being 19·47.

"Of the lower extremities there are twenty-nine cases, of which eight were fatal, if we include the two cases of doubtful prognosis; the fatality being 27·58 per cent.

"There are twenty-eight cases of amputations of the upper extremities, three resulted fatally, 10·71 per cent.

"Of amputations of the thigh thirteen cases are given, seven were fatal, including one of doubtful prognosis; mortality 53·84 per cent.

"Sixteen amputations of the leg are recorded, with one fatal case, 6·25 per cent. This *fatal* case was still living, it being by no means certain that he would die: should he recover, we would have sixteen cases of amputation of the leg, and no fatal result.

"Amputation at the shoulder-joint was performed in only four cases, one died; mortality 25·00 per cent.

"The arm was amputated in twenty cases, of which two patients died: 10·00 per cent.

"The amputations of the fore-arm were all successful.

"With regard to the 'mode' of performing the amputations, twenty-nine were by flaps; viz., thigh four, leg nine, shoulder-joint four, arm ten, fore-arm two. The circular method was resorted to in twenty-eight cases; under this head are included the ordinary circular, and the more decidedly conical mode—viz., thigh circular nine, leg circular six, conical one (=7); arm circular eight, conical two (=10).

"Of the twenty-nine flap operations, five were fatal, 17·02 per cent.

"Of the twenty-eight circular operations, six were fatal, 20·68 per cent.

"The four cases of secondary amputation were all fatal; it is quite probable that they would have recovered, had the operation been done immediately after the receipt of the wounds.

"The projectiles or missiles inflicting the injuries, as far as could be ascertained, were Minié balls in forty-two instances, 75·00 per cent.; grape-shot in seven cases, 12 50 per cent.; fragments of shell in six, = 10·71 per cent.; musket ball in one, 1·78 per cent. In thirty of the cases joints were directly implicated (54·54 per cent.); viz., knee-joint eight, ankle-joint five, shoulder-joint one, elbow-joint fourteen, wrist-joint two.

"In several other cases, the injury is recorded in the tables as a comminution of bones near the joints. In all the cases of amputation a serious lesion of one or more bones had resulted from the projectile; in no case had the operation been done without the most imperative necessity.

"In the fifty-one cases where it was ascertained which side of the body received the injuries, twenty-eight were on the right side; viz., six of the thigh, ten of the leg, and fourteen of the upper extremities.

"In twenty-three cases the injury was received on the left side; viz., thigh five, leg six, upper extremities twelve.

"The nativity exhibits fifty-two Americans, three Germans, and two Irish.

"In reference to ages, the youngest soldier was sixteen years of age, the eldest forty-six. The number less than 20 years of age was ten, from 20 to 30 years thirty-two, from 30 to 40 years thirteen, from 40 to 50 years two.

"In regard to rank, fourteen were officers; viz., five lieutenants, seven sergeants, and two corporals; the remaining forty-three were privates,

"Pyæmia is recorded as a cause of death in eight cases.

"Chloroform was used in all the cases.

"Of the fifty-seven cases of amputations, twenty-five were done September 17th, the day on which the battle occurred, most of them at night; only one case proved fatal.

"Sept. 18, twenty-four amputations were made, three of which were fatal.

"Sept. 19, four amputations, two fatal cases.

"Sept. 20, one amputation; doing well.

"Sept. 22, 23 and 29, one amputation each day, the first two fatal, and the third probably so.

"It is proper to state that great care was taken to obtain and include the histories of all the fatal cases that occurred from amputations after the battle, at all the houses where the statistics were collected. The writer was particular in his personal examination of all the stumps, and in his observations as to the vital condition of the patients, and in all doubtful cases to consult with the surgeons in charge in reference to the prognosis.

"It may be urged, as an evidence of the entire want of value of the above tables, that the facts were collected too early in the history of the cases, that many cases, from a variety of causes, would terminate fatally after the sixteenth day from the date of operation. The writer is aware of this objection, but being unable to remain longer with the patients, he was compelled to prematurely collect the materials to rescue the facts from entire loss. He thinks, however, that at the end of sixteen days the *tendency* to recovery or death ought to be quite definitely determined, but his chief apology is, as elsewhere mentioned, that the materials were arranged and published with a view to illustrate a uniform plan of reports, rather than for their intrinsic value."

EXEMPTIONS FROM MILITARY DRAFT.—Dr. Ira D. Hopkins, Jr., reports to the Surgeon-General of the State of New York the result of his arduous labors as Examining Surgeon of applicants for exemption in Oneida County. His report is published in full in the *Buffalo Medical Journal*. The assistant appointed to aid Dr. H. having declined to serve, the whole labor devolved on him, and occupied him, he says, from Oct. 29th to Nov. 22d, at the rate of twelve hours each day. During that time, 4,027 applicants were examined—of whom 986 were recommended to the Commissioner for exemption, and 3,041 were rejected. Among the diseases for which a recommendation for exemption was given, we copy the most prominent:—Disease of the throat and lungs, recommended, 178; refused, 249. Defective vision and loss of sight, 82 and 122. Hernia, 87 and 160. Defective hearing, 78 and 109. Injury to joints, 69 and 136. Disease of heart, 66 and 90. Rheumatism, 42 and 87. Hæmorrhoids and disease of rectum, 42 and 82. Disease of the bowels, 42 and 48. Dr. H. also examined some 700 affidavits taken by the Commissioner, and reports that the complaints stated in 617 of them are, if true, sufficient cause for exemption. The nativity, occupation, height, weight, color of eyes and hair, and complexion, of those exempted, are given by Dr. H., but need not be further copied than to mention that 77 were 6 feet and over in height, and, as a matter of curiosity, that 366 had blue eyes, 338 gray, 158 black, 90 brown, and 34 hazel. The list includes 13 physicians, and (the largest number) 410 farmers.

The report of Drs. J. S. Trowbridge and James E. King, Examining Surgeons for Erie County, N. Y., is also published in the same journal. The total number of applicants in the County is given as 4,031. The number receiving certificates of exemption was 2,848; number rejected, 983. The discrepancy of 200 in these figures is accounted for by supposing that that number, at least, in the rush of business the first two days, were examined and rejected but not registered. In the city of Buffalo, included above, the number of applicants is stated as 1,754. Certificates granted to 1,398; not granted, 856. Among the diseases and disabilities for which certificates were given in this County, we notice:—Injury to joints, 457; defective vision and loss of sight, 195; hæmorrhoids, 176; disease of throat and lungs, 179; myopia, 160; disease of heart, 150; hernia, right inguinal, 145; do. left inguinal, 136; other kinds of hernia, 47; injury to limbs, 141; varicose veins, 105; deafness, 102; rheumatism, 72; deformity of bones of sternum, 50, &c. &c. It is stated that 25 per cent. of the whole number of applications were made on account of alleged injuries to limbs or joints; and 20 per cent. for some kind of hernia or for hæmorrhoids.

DR. SANFORD B. HUNT, of Buffalo, N. Y., and Dr. J. F. Norton, of Fort Edward, N. Y., have received appointments as Surgeons in the U. S. Navy. Both of these gentlemen have been known as medical writers of much ability, and the former was once Professor of Anatomy in the University of Buffalo.

THE NEXT VOLUME OF THE JOURNAL.—The 68th Volume of the JOURNAL will be commenced on the 5th of February next. It is hoped that all its present readers will continue their support, and that many new names will be added to the list of subscribers. This is particularly desirable at the present time, as well as a settlement of many old accounts. It has been decided not to increase the annual subscription price. It will be necessary, however, to curtail the expenses of publication in some way; and we shall probably be compelled to reduce the number of pages in the weekly issues, either occasionally when original communications are not pressing, or constantly should the unfavorable state of public affairs continue to operate and make it unavoidable. No efforts will be spared to make the work valuable and acceptable to the profession.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JANUARY 17th, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - - -	51	32	83
Ave. mortality of corresponding weeks for ten years, 1853—1863,	38.4	37.0	75.4
Average corrected to increased population - - - -	00	00	83.10
Death of persons above 90 - - - - - - -	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
15	9	2	5	0	0	1	1

PAMPHLETS RECEIVED.—The Third and Fourth Reports by Frederick N. Knapp, Special Relief Agent of the Sanitary Commission for relieving sick soldiers passing through Washington.—Preliminary Report, by E. B. Elliott, Actuary to the U. S. Sanitary Commission, of the Mortality and Sickness of the U. S. Volunteer Forces.—Annual Register of the Rensselaer Polytechnic Institute, at Troy, N. Y.—Ninth Report relating to the Registry and Returns of Births, Marriages and Deaths in the State of Rhode Island, for the year 1861.—Seventh Annual Report of the Trustees of the Massachusetts State Lunatic Hospital at Northampton.—Report of the Superintendent of the New England Soldiers' Relief Association, New York.

MARRIED,—In this city, Jan. 17th, Dr. George B. Harriman to Miss Mary E. Stanley, both of Boston.—In Calais, Me., 8th inst., Dr. James F. Harlow, of this city, to Miss Augusta A. Shepherd, of Calais.—In Clinton, Jan. 15th, Dr. George M. Morse to Mary Frances, daughter of Dea. Wm. Stearns, both of C.

DIED,—In Charlestown, Jan. 17th, George Cutler, M.D., 48 years 10 months.—In North Bridgewater, Jan. 13th, Dr. Thomas Stockbridge, aged 70 years.—In South Danvers, Jan. 10th, of typhus fever. Dr. Benjamin W. Robinson, of Topsfield, formerly of Marblehead, 28 years 9 months.

DEATHS IN BOSTON for the week ending Saturday noon, Jan. 17th, 83. Males, 51—Females, 32.—Accident, 2—aneurism, 1—apoplexy, 1—congestion of the brain, 1—disease of the brain, 2—bronchitis, 3—cancer, 3—consumption, 15—convulsions, 4—croup, 9—diarrhœa, 1—diphtheria, 1—dropsy, 1—dropsy of the brain, 2—erysipelas, 2—scarlet fever, 2—typhoid fever, 1—gastritis, 1—disease of the heart, 3—infantile disease, 1—intemperance, 2—congestion of the lungs, 2—inflammation of the lungs, 5—marasmus, 3—old age, 1—pemphigus, 1—premature birth, 3—disease of the spine, 1—purpura, 1—unknown, 8.

Under 5 years of age, 37—between 5 and 20 years, 9—between 20 and 40 years, 14—between 40 and 60 years, 17—above 60 years, 6. Born in the United States, 62—Ireland, 17—other places, 4.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

Vol. Lxvii. Thursday, January 29, 1863. No. 26.

CASE OF HYDROPHTHALMIA AND ENUCLEATION OF THE EYEBALL.

[Read before the Boston Society of Medical Observation, January 19th, 1863, and communicated for the Boston Medical and Surgical Journal.]

By B. Joy Jeffries, M.D.

Mrs. A. B., æt. 25, low stature, very stout, residing in New Brunswick, began, in May or June of 1854, to have a "burning sensation" in the left eye, accompanied with "general pain" in the eye and redness. This latter was "better and worse at times." The *pain* was almost continuous. She applied to regular physicians, all of whom recommended poulticing the eye. This she did three or four times, but "came to the conclusion that poultices would not do, and so left them off." She afterwards used vinegar and water. The eye still seemed for a long time to remain *in statu quo*. In August of the following year, 1855, she came to Boston, and staid through the winter, going in the spring of 1856 to reside in a neighboring town, where she has been since.

At this time, four years ago, she applied to a physician of this city, with pain and inflammation in the eye. Patient says she was told that she must wait, because the other eye would get into the same state, and then an operation on both would cure them. Repeatedly replied that no name was given to the disease, and says that at that time the cornea ("the sight of the eye") was not transparent, she being at the time just able to count fingers. A stimulating wash was ordered, to be followed by a soothing one. These had no effect on the pain or inflammation.

She afterwards applied to another physician, who also did not name the disease, but directed a wash, which, however, had no effect. One year ago, in the fall of 1859, she went to a quack three times a week for three weeks. So far as can be made out from patient's description, he punctured the eyeball behind the ora serrata. This seemed to relieve the pain for about one day, and then it came back again. She afterwards went to him again, in all, she thinks, some four or five months. After this, she went to another quack oculist, who said the affection was "nothing," and applied some very strong wash, "which flashed pain so over the side of the head that she forgot the pain in the eye, but in a little while it came back again." To this one she went but a few times. Had been advised but did not try spiritualism, &c. &c. Was told by a physician in the town where she resides, that the disease was "floating cataract."

In July of 1860 she applied at the Massachusetts Eye and Ear Infirmary, where the surgeon in attendance told her that the eye should be removed. Dissatisfied with this, she went away. The record on the books of the Infirmary is: "Disorganization of the left eye. Pain off and on for six years. Swelling two years. Choroid shining through. Exudation points in cornea."

The same day she came under my care, the condition of the eye being as follows. Upper and lower lid of left eye somewhat swollen and discolored by venous congestion. Globe enlarged and apparently protruding. Lids could be easily closed over it. Corneal curve reduced to that of the sclerotic. Cornea filled with patches, apparently extending through its whole thickness, of whitish deposit. These were not sufficient to prevent the iris being seen, which appeared somewhat pressed back. The anterior chamber large. Iris apparently of natural color. Pupil small, and, so far as could be seen, black. Conjunctival vessels enlarged and distended. Anterior choroidal vessels distended, and irregularly showing through the sclerotic, with dark blue color. From the enlargement of the eye, the congestion, and this bluish-black look of the anterior portion, the first glance would have very naturally suggested melanotic growth. To the touch, the eyeball was yielding, but elastic, the cornea bending and altering its curve as readily apparently as the sclerotic. The pain had been continuous—worse at night, less in the morning. There was no pain, and had been none, in the other eye, which appeared perfectly normal. With the affected eye the patient could count fingers held before it, and exhibited much greater power of vision than the general appearance of the eye would have indicated. This showed that the *choroid*, posterior to the ora serrata, and the *retina*, could not have become affected, at least to any great extent. The external appearances were also limited to the anterior third of the globe.

The case was therefore considered to be one of serous inflammation of those portions of the eyeball supplied by the long ciliary and muscular arteries and their accompanying veins, or if a recognized name is asked for it, *staphyloma scleræ anticum (annulare)*, dependent upon hydrophthalmia anterior. The course and distribution of the above-mentioned arteries and veins may be seen in Soemmering's beautiful plates, which have been copied ever since they were published, the latest re-issue of which may be found in Thomas Nunnelly's work "On the Organs of Vision," London, 1858. It will be seen that the anterior third of the bulb has quite an independent vascular circle. And this will explain why Beer, so many years ago, in Vienna, was correct in his acute division of internal inflammations of the ball into anterior and posterior. In examining the German, French and English modern treatises on the eye, it will be found that Arlt, now in Vienna, gives in his hand-book the best description, and the above explanation, of this form of hydrophthalmia. (Buch III., pages 12 and 20.) It is also dwelt upon in Stellwag von Carion's work, just published. Other authors do not seem to have given it so much notice as it perhaps deserves.

The first question which naturally presented itself was, is this a case for iridectomy? This was answered in the negative. There were no signs of great internal pressure. The bulb was soft. Moreover, the cornea was so yielding, with apparently commencing softening and degeneration, that any large opening of the anterior chamber was contra-indicated. Von Graefe, from his own experience of iridectomy in hydrophthalmia, says: "I have not seen any injurious effect from the formation of artificial pupil, but neither have I been convinced of any curative action, so that at present I cannot recommend imitation in similar cases."—Sydenham Society's Translation of Von Graefe's Iridectomy in Glaucoma.

The choice, therefore, was between simply puncturing the eye and enucleation or sinking. As there had been no pain as yet in the other eye, and the sight was still sufficient to distinguish fingers, &c., the patient was told that there was a *possibility* of saving the eye by repeated puncturing the cornea. Being very averse to having the eye removed, she readily agreed to this. The cornea was punctured with a reclination needle, and a large portion of the aqueous humor allowed to flow off. There was instant relief from pain, the conjunctival inflammation decreased, and also the swelling of the lids. This state lasted for a fortnight, when the patient returned with pain in the eye. The eye had improved in appearance, and was again punctured, with immediate relief as before. The anterior chamber was thus punctured on the return of pain or uneasiness every little while (that is, at intervals of a few days to a fortnight) from this time, the latter part of July, till about the first of October, at which time there were symptoms of returning conjunctival inflammation. The patient was now told that the chances of restoration of sight were very small, and that it was better to remove the globe. The cornea, however, was again punctured, and the patient returned home, the eye feeling quite easy. She was told that if there should be any increased pain in the affected eye, or any pain in the other eye, she must come to Boston prepared to have the globe removed immediately.

Oct. 11th, pain came on very severe at night, lasting all night; in the morning there was complete loss of sight and great pain, also pain in the *other eye*, which she never had had before. The following day she came to Boston, with the pain still continuing. There was general conjunctival reddening, the lids swollen, and pain in the other eye. She was told the eye must be at once removed. This was done the following morning, under ether. It was intended, if possible, to remove the globe from within the capsule. From the projection of the anterior portion of the globe, the external rectus muscle, which it was intended to grasp with the forceps (together with the conjunctiva above it), was seized with difficulty. The inflammation had fastened it down to the bulb, so that the muscle was stretched through its opening in the capsule before it could be cut off. The other muscles presented no great difficulty. The conjunctiva was cut off pretty close to the cornea, with the exception of that portion, as we have said, lying over the external rectus. There was some bleeding from the conjunctival vessels, which soon stopped upon removal of the globe. A simple cold-water dressing was applied over the lids, with a bandage to keep it in place. Nothing was put between the lids. The effects of the ether lasted some little time, but in the afternoon, when the patient was again seen, she reported no pain in the socket, simply an uneasy sensation when attempting to open the other eye. No pain in the other eye, and much more comfortable than for some time past. The few following days, apparently from the ether, there was dizziness, slight nausea and loss of appetite. On the third day there was some swelling of the lids and cheek, which cold applications reduced. On the fifth day after the operation she was up, and on the tenth felt able to, and did, return home, some fifteen miles from the city, having had no pain in the socket of the eye removed, and no pain in the other eye, Oct. 24th, 1860.

Nov. 17th, five weeks after, the patient came to Boston on account of some muco-purulent discharge from the orbit. The parts had cicatrized well, leaving a good deal of motion to the remaining capsule. The conjunctivitis, which had caused the discharge, was probably aggravated by the lids turning in and producing irritation. Had had no pain or trouble. Thorough washing with warm water, and occasional injections of arg. nit. gr. iij. to ℥ i. aquæ, were ordered.

Dec. 19th, one month later, patient appeared, having still a slight secretion from the orbit. Can work about with right eye, and read in daylight, but not by candle-light. Has been no pain. Was told she could now wear a false eye. She had one selected, and commenced wearing it.

Dec. 3d, 1861, a year afterwards, patient reports that there is, and has been, a constant discharge from orbit. The conjunctiva appeared slightly irritated, and some puro-mucous secretion. She wears the eye about half the time. Prefers to wear it, as it is much more comfortable. Uses the other eye for sewing, reading, &c., without having to think about it. Ordered the same solution as before, when the discharge was profuse.

Jan. 17th, 1863.—Patient's husband applied to-day in reference to procuring another artificial eye, the first having been accidentally broken about a year ago. Says there is still some discharge, but no *pain* or *other trouble* in the remaining eye. Prefers to wear an artificial eye.

Examination of the globe 9 hours after removal.—Bulbus has portion of external rectus attached to it. Posterior half of bulb not much if any enlarged. Anterior half enlarged. Cornea flattened, soft, irregularly opaque, showing marks of punctures. Iris just visible. Pupil small. On section through the plane of the longitudinal axis, anterior chamber perfect. Pupil closed with thin layer of lymph, and edge of iris attached to the lens. Lymph on anterior surface of iris. Curve of cornea same as that of sclerotic. Cornea not thinned, no marks of ulceration. Where opaque, so entirely through. Fibres of section, under the microscope (× 250), irregularly broken, and not interlaced as natural. Line of demarcation between cornea and sclerotic not well defined in section. Lens clear. Nucleus moderately well marked. Ciliary muscle not very well developed, *apparently atrophied.* Posterior half of the eye appeared healthy. Vitreous humor clear, and *not* broken down. Retina apparently healthy, not detached. The optic nerve entrance looked healthy. The vein distended with blood. Choroid coat not rich in pigment, although the anterior pigment layer did not appear broken down within the range of the retina; anteriorly to this it did not appear *so* regular. Portions of choroid from equator of the eye, under the microscope, appeared healthy. In fact, all behind the ciliary muscle was well adapted to study the pure anatomy of the part.

Remarks.—Whether to remove the globe or sink it, has always been a question of debate. In the above case there seemed to be no doubt, as the other eye had become affected from sympathy, and therefore it was desirable to remove all cause of irritation, such as a suppurating stump would have been. And since the anatomists have revived the surgeon's remembrance of the existence of the capsule of Tenon, enucleation has, where practicable, taken the place of extirpation.

As the standard works in our language on anatomy do not seem to recognize the existence of Tenon's capsule, perhaps it may not be out of place to recal its anatomy and bearing on surgery here. It was imperfectly known to Galen, who says: "Sexta quædam tunica extrinsecus prope accedit, in duram tunicam inserta." (De usu part. cap. 2.) Reald. Columbus, in his "de re anatomicâ," Venet., 1559, lib. x., calls it "tunica innominata." Tenon, 1804, described it more fully in his "Memoires et observations sur l'Anatomie," page 200, and it has received his name, Hyrtl calling it "fascia Tenoni," or "tunica vaginalis bulbi." Malgaigne was the first to point out its surgical importance. He considered it an aponeurosis, and called it albuginea. In 1841, O'Ferrall, in Dublin, and about the same time Bonet, in France, *re-described* this membrane. The former's treatise may be found in the 19th volume of the *Dublin Journal of Medical Science*, 1841. An extract from this, with a good drawing of a dissection, is in "Haynes Walton's Operative Ophthalmic Surgery," London, 1853.

The capsule is a fibrous membrane, commencing at the edge of the orbit, running behind the conjunctiva on to the globe up to the cornea, from thence back over the bulb to the optic nerve. Of course, in operating for strabismus, the object is to keep within it, and cut the muscle after it has penetrated the sheath of the globe, in which the latter readily turns, being loosely connected with the sclerotica.

The following method of operating for enucleation is not generally described, but is simplest. The conjunctiva over the outer or inner rectus is raised with forceps and cut with curved, probe-pointed scissors, the sclerotic insertion of the tendon seized and firmly held with forceps. The tendon cut with scissors. Then the conjunctiva slit up close to the cornea, the other straight muscles, or rather their tendons, divided with the scissors. Next the optic nerve, when the globe comes forward, and we separate the oblique muscles, leaving the capsule and the muscles attached, to move it when an artificial eye is adapted.

DIALYSIS.[*]

Human ingenuity is advancing the art of chemical analysis with rapid strides. It is becoming no easy matter to keep oneself at all *au niveau* with the discoveries in this department of science. While yet fascinated with the beauties and subtleties of Spectral Analysis, our attention is claimed for another analytical discovery, less beautiful it is true and less subtle, but susceptible of much wider application, yielding results of greater practical value, and therefore possessing more immediate interest to us as medical men. We allude to the discovery of Dialysis, which we owe to Mr. Graham, the present Master of the Mint. It may be fairly described as a kind of royal road or short cut, enabling us to arrive at analytical results previously unattainable, or attainable only by processes far more complicated, far more open to fallacy. Except in rare instances it employs no chemical reagents; it achieves its end merely by availing itself of certain physical properties inherent in the subtances to be analyzed. Our readers may possibly welcome an account of the principles of this new analytical process, the mode of its practical application, and the peculiar, valuable results it enables us to attain.

Dialysis may be defined as analysis effected by liquid diffusion—in other words, the separating of liquid substances from each other by taking advantage of their different rates of diffusibility under particular circumstances. Our knowledge of the laws of liquid diffusion was exceedingly imperfect up to the summer of last year, when Mr. Graham published the results of his elaborate researches on this subject. So much of these results as is necessary in order to understand the principle of dialysis, we will endeavor very briefly to explain.

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[*] "Graham on Liquid Diffusion applied to Analysis," *Royal Society's Transactions* for 1861, Part I. "Redwood on Dialysis," *Pharmaceutical Journal* for April, 1862. "Daubeny's Lectures on Agricultural Chemistry," *Gardeners' Chronicle* for December 7 and 14, 1861.

First. There is a great difference in the diffusibility of different substances in the liquid state, just as there is in the gaseous state. If by means of a pipette we convey a solution of any substance (a salt for instance) to the bottom of a jar of distilled water so as to form a distinct stratum, and then leave the jar undisturbed in a uniform temperature, the dissolved salt will always diffuse into the superincumbent water at a certain rate within a certain time. This rate will vary with the nature of the medium into which diffusion takes place; if, for instance, some other fluid be used instead of water. Briefly expressed, the fact amounts to this—that "different substances in solutions of equal strength diffuse unequally in equal times." (Redwood.) For instance, common salt diffuses into water twice as fast as Epsom salt, and this latter twice as fast as gum Arabic. Again, if instead of a single substance we convey a mixed solution of two or three substances to the bottom of the said jar, these substances, notwithstanding their mixture, will still maintain their respective rates of diffusion, the more diffusive body travelling most rapidly and showing itself first and most largely in the upper strata of superincumbent liquid. Hence, what in the case of a single body is mere diffusion, in the case of two or more bodies mixed together is a diffusive separation of them from each other. Such separation of them will be more or less complete in proportion to the difference between their respective diffusibilities.

Secondly. Between highly diffusive substances on the one hand, and feebly diffusive substances on the other, Mr. Graham has established some important grounds of distinction. The only one, however, which concerns us at present is this—viz., that the former affect the crystalline condition, while the latter are not crystallizable, and have, further, the peculiarity of becoming gelatinous when combined with water. Hence, highly diffusible substances he classes together as "crystalloids," and feebly diffusible ones as "colloids" (from *collin* or gelatine, the type of the class). Among the colloids are hydrated silicic acid, hydrated alumina, and other soluble metallic peroxides, isomorphous with the latter body, together with gelatine, albumen, starch, dextrin and the gums, caramel, vegetable and animal extractive matters.

Now, it is characteristic of the bodies just mentioned that, while they are more or less permeable to crystalloids, they are wholly impermeable to other colloids like themselves which may be in solution. For instance, suppose a layer of firm jelly, or some other colloid of a more convenient nature (such as an animal membrane) to be interposed between water on one side, and a mixed solution of common salt and albumen on the other, it will wholly intercept the albumen, but will allow the salt freely to diffuse through its substance into the water on the opposite side.

It is plain, therefore, that although, as was above shown, simple diffusion into water will partially separate mixed bodies from each other, a far more complete separation will be attained by causing the diffusion to take place into water, not directly, but through an intervening membrane, such as a bladder or sheet of parchment. And this is just what is done in dialysis, which is nothing more than the diffusive separation of crystalloid from colloid bodies through a septum of gelatinous matter, the septum allowing the passage of the one, not of the other. The apparatus needed to conduct this process is the simplest possible. It consists of (1) a basin or deep dish containing three or four inches of pure water; (2) a "dialyser," which is merely some kind of membranous septum secured by a bit of string around a light hoop of sheet gutta-percha, so as to form a vessel like a tambourine. Of all the substances yet used for dialytic septa, the most convenient has been found to be the "parchment-paper" made and sold by Messrs. De la Rue and Co. Care must be taken that it is not porous. The mixed fluid to be dialysed is first poured into the hoop upon the surface of the parchment-paper to the depth of half an inch or so. The dialyser is then floated on the basin or dish of water, into which the crystalloid constituents of the mixture gradually diffuse, the colloid constituents remaining behind. Mr. Graham found that half a litre of urine, dialysed for twenty-four hours, gave its crystalloidal constituents to the external water. The latter on evaporation yielded a white saline mass, from which urea was extracted by alcohol in so pure a condition as to appear in crystalline tufts upon the evaporation of the alcohol. Professor Redwood observes that ordinary septa can only be used in dialysing aqueous solutions; a septum suitable for dialysing alcoholic or ethereal solutions not having yet been discovered. Some form of collodion, he suggests, may possibly answer the purpose.

The process of dialysis admits of some very important practical applications, to which we will briefly allude. (1.) It permits of the isolation of various chemical substances in a state of purity in which we were not previously aware of their being able to exist. For instance, chemists had hitherto never succeeded in obtaining a perfectly pure solution of silica. The solution of it, obtained by treating silicate of soda with hydrochloric acid, was not pure; it always contained a certain quantity of hydrochloric acid and chloride of sodium, which resisted all further attempts at separation. But by subjecting the said silica solution to the process of dialysis, the acid and salt, being crystalloids, diffuse out, while the silica, being a colloid, remains behind dissolved in water and perfectly pure. In like manner, dialysis enables us to obtain solutions of peroxide of iron, alumina, and several other bodies, perfectly free from the salts or other chemical agents hitherto indispensable to their solution. (2.)

In medico-legal inquiries, it affords a most valuable means of separating arsenious acid and the various poisonous metallic salts from their organic solutions. For instance, let a portion of tissue suspected to contain arsenic be chopped into small pieces, soaked in pure water, and then thrown on the dialyser. At the end of twenty-four hours the arsenic, even if its quantity be infinitesimally small, will have diffused into the external water in a state fit for the immediate application of chemical tests. The poison is thus eliminated free from all organic impurity, and without employing any other agent than distilled water—advantages which any one conversant with the usual processes for separating minute quantities of arsenic will not fail to appreciate. Vegetable poisons, such as strychnine, morphine, and the other poisonous alkaloids, may be separated from their organic solutions in precisely the same manner. (3.) Professor Redwood suggests its application to another purpose, viz., "the separation of the more active crystallizable constituents of vegetable substances from inert colloidal matter, and the production in this way of a new class of medicines, containing the more active principles of plants, partially purified, and in the state of combination in which they exist in nature." Such preparations would occupy an intermediate place between tinctures, decoctions, and extracts, on the one hand, and the pure, active principles which they often contain (such as alkaloids), on the other. The advantages of vegetable remedies in this form would be greater uniformity of strength, certainty of action, and convenience of administration. They would also keep better, and being void of all inert matter they would be *purely* medicinal, which in their present crude state they are not. The difficulties in the way of their preparation would be great, but probably not insurmountable. (4.) It affords a partial explanation of certain points in the physiology of animals and plants hitherto involved in much obscurity. (We say "partial" explanation, because, in all the processes about to be mentioned, a *vital* as well as a *physical* force is at work. At any rate, their full phenomena take place only where life is present; they cannot be imitated outside living organisms.) Professor Redwood instances the processes of absorption and secretion accompanying the act of digestion. The mucous membrane of the stomach and intestines may be compared to a dialytic septum between the blood on the one side, and the blood-making constituents of food on the other. Dilute liquids taken into the stomach diffuse through, or (as we generally say) are absorbed by, its mucous membrane. The plastic constituents of food, on the other hand, being colloids, "are retained in the stomach, while the act of digestion proceeds under the influence of crystalloids that are dialysed into that organ, and then pass on to undergo new changes connected with absorption, assimilation and excretion." He further observes that "the action of medicines must be considerably influenced by the state in which they exist as crystalloids or colloids. Thus, iron in the state of chloride, sulphate, or other crystalloidal salt, would be diffused through the walls of the stomach; but not so if in the state of a colloid, such as basic chloride or basic nitrate, in which state it would pass into the intestines, exerting its action probably through the entire length of the alimentary canal." When we know more of the comparative diffusive power of different medicinal preparations than we do at present, we shall probably prescribe them with greater success.

Lastly. Professor Daubeny, of Oxford, has shown, very clearly and fully, how and to what extent the principle of dialysis explains certain phenomena of vegetation—such as the transmission of sap through a plant, the separation of its various secretions from each other, and their maintenance in a state of isolation in appropriate receptacles. (1.) The sap is propelled upward through the plant partly by capillarity, partly by atmospheric pressure, owing to the evaporation from the leaves and the partial vacuum thereby occasioned. But it makes its way *into* the plant, in the first instance, by endosmosis through the spongioles of the roots. (2.) The particular compounds secreted from the sap in different parts of the plant are maintained in their state of isolation and purity by the same principle of dialysis. The peculiar juices of plants (starch, gum, oils, &c.) are generally colloids, and therefore have no tendency to pass through the walls of the cells in which they have been elaborated. The different acid and alkaline products, on the other hand, being crystalloids, permeate membrane freely, " but are only temporary constituents or steps in the series of changes which are intended to convert carbonic acid into sugar and starch, and they are consequently got rid of either by exosmosis or else by some other chemical process by which they are converted into glucose or fruit sugar." The principle of dialysis has likewise important bearings on the nature of the ultimate molecules of matter, and on certain geological phenomena. These, however, possess more interest to the geologist and physicist than the physician.—*Medical Times and Gazette.*

CLINICAL INSTRUCTION IN THE HOSPITALS OF VIENNA.

By E. L. Holmes, M.D., of Chicago, Ill.

One of the most popular clinical lecturers in Vienna is Prof. Oppolzer. One can scarcely conceive a more practical plan of imparting medical knowledge than that adopted by this distinguished lecturer. Gifted with great fluency of speech and possessing a wonderful degree of erudition in everything pertaining to the past and present history of medical literature, united with an immense experience in the observation and treatment of disease and in public instruction, he is able to make his lectures interesting and of the greatest good to his listeners. Not only students, but old practitioners testify by their continued presence to the great merit of these lectures.

Every patient, as soon as he enters the wards of the lecturer, is assigned to the care of a student, whose duty it is to make a careful examination of the symptoms and keep a record of the case as long as it remains in the hospital; at the clinic the professor questions the student in presence of the class in everything pertaining to the case, calling the attention of all to every important point and comparing it with other similar cases in the ward. At the same time, the secretions are carefully examined by means of the microscope and test tube.

The clinics are usually about an hour and a half long, and are given six days in the week.

The clinics of Prof. Scoda are also worthy of notice. Although he is much less fluent and generally considered less interesting in his manner than Prof. Oppolzer, his lectures are none the less instructive. They are principally upon diseases of the chest. There are a sufficient number of patients and ample opportunity for every student to examine each patient for himself. Private courses of instruction in auscultation and percussion are given by Professor Scoda's assistant.

These clinics are followed by those of Professors Schuh and Dumreicher in the surgical wards. The general plan of instruction is the same as above described. Everything relating to operations, to the diagnosis and treatment of injuries and surgical diseases, is carefully taught, with cases enough to illustrate every important point. I should infer, after considerable observation, that injuries requiring surgical treatment, especially fractures, were rare in Vienna as compared with our own large cities.

The clinical lectures in obstetrics are particularly important to the American student, who has little opportunity of receiving clinical instruction in this branch of his profession in America.

There are upon the average, I think, eight births a day in the hospital. The patients are delivered in a room assigned for the purpose, and then carried to the wards, where they remain nine days, or until they are able to leave. The class is carefully instructed in the mode of making examinations per vaginam, and of learning the position of the fœtal head and body during labor. The whole process of parturition is thus learned by repeated observation. There are also private courses on the use of instruments and "turning," the cadaver, from which the viscera have been removed, serving the purpose of a manakin. A dead fœtus is placed in different positions in the pelvis, which the students are to examine in turn and give their diagnosis. After this the operation of turning or the application of forceps is made, and the fœtus delivered. When the student has taken this course on the application of instruments, he is permitted to use them, when necessary, on the living subject in the lying-in wards. One thus has an opportunity of watching several hundred cases of labor, of having a small number under his own care, and of learning practically the use of instruments; he is also taught the duties of the lying-in room in reference to the mother and infant during the nine days subsequent to delivery.

The clinics of Prof. Hebra on diseases of the skin are one of the most popular courses in the hospital. In his wards are nearly two hundred and fifty patients, and with this large number of cases he is able to illustrate all the important points in the commencement and progress of every form of skin disease. The wards are open to the students, but Prof. Hebra usually delivers his lectures in a small amphitheatre, the patients being brought before the class. After he has called the attention of the class to the points worthy of notice in each case, the patient passes from one student to another, thus enabling each to examine him more closely. The male patients are wholly naked at the clinics; the females being dressed in loose garments, to permit a ready examination of any part of the body. These clinics are given five days in the week.

The lectures of Prof. Sigmund on syphilis are very popular. There are two or three hundred cases in his wards. A careful examination of these, in connection with the lectures of the Professor, will make the student more familiar with this disease than he can be after years of reading and observation in private practice.

Students interested in diseases of the eye will find the clinics of Professors Arlt and Jäger interesting and instructive. In these wards are about two hundred patients. The student has ample opportunity of acquiring a knowledge of the use of the ophthalmoscope, of witnessing a large number of operations, and of acquiring skill in the diagnosis of ophthalmic disease.

In addition to the ordinary clinics as above described, there are private courses of instruction in the clinical study of every class of disease, including treatment, operative and medical. These courses are scarcely less beneficial to the student than the others, as they give him an opportunity of reviewing what he has already learned from the different professors.

I cannot close this short notice of the clinics of Vienna without alluding to the facilities given to the student for the study of pathology. There are, upon the average, five *post-mortem* examinations a day, at which students can be present, notice always being given, when a patient dies, of the hour at which the autopsy will be made. Generally, however, the students prefer to be present at the lectures of Prof. Rokitansky, at which all the morbid specimens of diseased organs collected each day are exhibited. The private course of Rokitansky's assistant is very useful, since he not only demonstrates all the fresh specimens, but visits the great Pathological Museum, for which Rokitansky has so long labored, and explains all the preparations, illustrating the effects of the disease of each organ.

The Pathological Museum may justly be regarded with pride by the Medical School of Vienna. The building is a large fire-proof structure of stone and brick, erected at a cost, as I was informed, of $40,000. The Museum is a large hall, tastefully fitted and ornamented. The other portions of the building are used for the reception of the dead, previous to burial, for dissections, for the ordinary *post-mortem* examinations of the hospital, and for the examination of cases of sudden or violent death in the city. Each Professor has a private room for the examination of his own cases. Whatever may be said of the advantages offered by other cities for the study of surgery or medicine, I think no city can claim for its hospitals better facilities for the study of pathology than can be found in Vienna.—*Chicago Medical Journal.*

Bibliographical Notices.

A Practical Treatise on Dental Medicine, being a Compendium of Medical Science, as connected with the study of Dental Surgery. By Thomas E. Bond, A.M., M.D., Professor of Special Pathology and Therapeutics in the Baltimore College of Dental Surgery. Third Edition, revised, corrected and enlarged. 12mo. Pp. 411. **Philadelphia: Lindsay & Blakiston. 1863.**

The object of the author of this work was to prepare a compendium of such diseases as are in any way likely to be associated with those conditions of the teeth calling for the skill of the dentist. The work begins with a brief account of the causes, symptoms and treatment of disease in general. This is followed by a chapter on inflammation, and the remainder of the book is taken up with notices of ulcers, tumors, neuralgia, and various other morbid and traumatic affections of the mouth and the surrounding parts, giving the most important points in their diagnosis, and some rules for treatment. The obvious deduction from reading this book is, that no one is fully prepared for the practice of dentistry who is not well versed in the principles and practice of medicine. As a whole, the author may be said to have succeeded as well as the limited nature of his plan would allow. We notice some slight blemishes and inaccuracies in the derivations of words as given in the notes. In treating of anæsthetics the author says:—"Ether is used by some surgeons, and especially by some dentists, because it is supposed to be less dangerous than chloroform. But there is no reason to believe that when anaesthesia is accomplished by ether the danger to the patient is less than when the same condition results from chloroform. Three years ago nineteen deaths from ether were reported in Europe." Of the accuracy of which last two statements we beg leave to express a respectful doubt.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JANUARY 29, 1863.

Deaths from Chloroform.—The following notice, characteristically French, is from the *Gazette Médicale de Lyon*, a journal long an advocate for the use of sulphuric ether.

"We are not wearied with reporting, any more than surgeons are with reproducing, the deadly action of an agent which was once called beneficent. A sense of duty and the hope of opening eyes so obstinately shut, stimulate us in an endeavor at which we work almost single-handed. If anything could cool our ardor, it certainly would be the spectacle of the strange and growing apathy evinced by the authors and reporters of these surgical mishaps. We present our readers with a new and improved formula for these narratives, which, latterly and on too many occasions, have been multiplied in English surgery. 'A young girl, seventeen years old, was received at the hospital on the 23d of July last, and died on the 5th of August. She had received an injury by falling on an iron bar, and a short but painful operation was judged necessary. She consented to be put under the influence of chloroform, and as she was very nervous, great precautions were taken in its administration; but, in consequence of a feeble and fatty heart, which was not guarded against, she died a short time after the commencement of the inhalation of the anæsthetic.—(*British Med. Journal*, Aug. 16, 1862.)' Here, then, is a young girl of seventeen, who, instead of being put to sleep, dies in a few minutes. Is any one disturbed by the event; is even any astonishment felt? Not the least! Her heart was 'feeble and fatty,' and they 'hadn't guarded against that.' This clears them all. Surgery is justified, and the operator passes on to the next."

In the *Medical Times and Gazette* of Nov. 1st, 1862, the full details are given of an inquest held upon the body of a man dead from chloroform. His thigh was to have been amputated, but whilst the operator was selecting his knife from a neighboring table his patient expired. The gentleman in whose hands this case occurred is spoken of as "one of the best surgeons in Gloucestershire," and it is clear that he used every precaution and care. After stating to the coroner that Dr. Snow's inhaler was used, in order to "reduce the *inevitable* risk of chloroform to a minimum," he says, "had it been possible to examine all the organs separately, before death, as I did after, I should have concluded that, of all patients I had ever seen, he was the very one who might fairly have been supposed to have taken chloroform with the greatest impunity." "That such a person should so have died, demonstrates that there are individuals in whom unconsciousness from chloroform is necessarily incompatible with life. At the same time a medical man is unable to select such from the general mass."

In the same Journal, three weeks later, Dr. Charles Kidd, best known for his persistent efforts to prove chloroform an absolutely innocuous agent, informs us that there have been "two deaths at one London hospital, within a few days, very recently, which were not noticed by the journals." We might add to these a fatal case occurring at Washington, within the last two months, in a Government hospital, of which no public mention has been made.

Is it strange, however, that incidents like these should be of frequent occurrence, when, in face of all the dangers admitted by the users of chloroform, the latest and most pretentious work on Surgery published in England, devotes an article to the subject of anæsthetics, only alluding to sulphuric ether in a single line, which barely mentions its connection with their early history, and instead of sounding the alarm which is everywhere felt, fills up its pages with a consideration of certain laryngoscopic demonstrations of the phenomena of stertorous breathing, and hardly deigns to deal with so common-place or practical a matter as the method or means of inducing anaesthesia?

If the facts which already exist are faithfully collated by the Committee of the Royal Medico-Chirurgical Society, recently appointed to investigate deaths from chloroform, the hopes of our French contemporary can hardly fail to be encouraged, and the prejudices with which we in Boston have been charged, proved to be founded on no local or narrow-minded grounds.

NARROW ESCAPE FROM DEATH BY CHLOROFORM.—Since the above was written, our attention has been called to the following case, reported in the London *Lancet* for Nov. 15th. The patient was about being operated on for the removal of a bulbous nerve from a painful stump.

"Chloroform was administered on the 14th, and when complete insensibility had been produced, Mr. Cock commenced his incisions on the stump. At this moment the patient was observed to become suddenly pale, and the breathing instantly ceased; the pulse was found also to have stopped. Immediately the most active efforts were made to restore animation. Cold water was dashed upon the face and chest without avail. Mr. Cooper Forster used artificial respiration by compressing the chest laterally; the lower jaw was forced downwards, and the mouth kept widely open; whilst the tongue was seized by Mr Bryant, and held out of the mouth by means of a flat forceps. In the course of two or three minutes the artificial respiration succeeded in producing a sigh, and as the pulse commenced to beat, it was sufficient encouragement to continue it. In three or four minutes more it was quite successful, and the breathing and circulation were established, the color returning to the cheeks. There can be no doubt that if the most energetic means had not been at once resorted to, the result would have been fatal. The great functions of respiration and circulation appeared to cease simultaneously. It is more than probable that the pulse was the first to give way, and that syncope preceded the asphyxia.

"This makes the sixth or seventh case we have now seen of nearly fatal issue within a definite period of time, and the result of continued experience seems to prove that the best chance is held out for the safety of the patient by opening the mouth wide, pulling the tongue forward to free the glottis, and then actively employing artificial respiration, as was practised here. If matters still remain doubtful, the forefinger should be introduced far back into the throat, to ensure that the glottis is not closed by its valve."

IN *The American Journal of the Medical Sciences* for the present month Dr. Bowditch gives, in a valuable paper on Paracentesis Thoracis, the results of his observation of one hundred and sixty instances in which this operation was performed, on eighty persons, in all but ten of which it was done by himself. Most of our readers are probably aware that the great success of this operation in Dr. Bowditch's hands is ascribed by him, and no doubt rightfully, to the use of a very small exploring trocar and canula, and suction pump, by which a trifling wound only is inflicted, which heals at once. The whole question of the seriousness or innocuousness of paracentesis thoracis may be considered as demonstrated to depend entirely on the size of the instrument employed. To Dr. Morrill Wyman, of Cambridge, Mass., the credit of suggesting this method is due. The following extracts from this valuable paper are particularly interesting. Dr. Bowditch, having been asked his opinion as to the comparative results of tapping the right or left side of the chest, Trousseau maintaining that pleurisy of the right side is often or always tuberculous, gives his own impression as against the truth of the assertion.

"On referring," he says, "to the brief summaries, and not to the original notes of my cases, where I find the sides named in 25 cases, I find that in these the operation was performed with the following results:—

	PLEURISY OF	
	Right side.	Left side.
Death	4 times.	5 times.
Cure entire, without symptoms of phthisis, except in one, but pleurisy was cured in that	9 "	4 "
Doubtful result	1 "	2 "
	14	11

"These data do not exactly answer the question proposed: but if tubercles always or more frequently exist in pleurisy of the right side, we should, *à priori*, anticipate more unfortunate terminations of the operation of paracentesis of the right than of the left side. My experience proves exactly the reverse, and may be expressed, if deduced from the above table, as follows:—

"Of 25 cases, 14 were of the right side, 11 of the left. Of the 14 of the right side, only one person is mentioned as having tubercles, and in that the pleurisy was cured and the pulmonary symptoms mitigated.

"Of the persons tapped in right side, 28·57 per cent. died: 64·28 per cent. were cured, and 7·14 per cent. remained doubtful. Whereas, of the 11 cases of the left side, 45·45 per cent. died, 36·36 got well, 18·18 were doubtful.

"In other words, twice as many have got well from tapping the right as the left; and only half as many have had doubtful results from operations on the right, as in those where the left side has been tapped.

"Hereafter, if my cases are any criterion wherefrom to judge, I shall regard an operation on the right side as much more favorable than one on the left; which I can hardly think would be the case were all right side pleurisies tuberculous."

As to the questions—when shall the operation be done? and where shall the puncture be made? Dr. Bowditch says:—

"Experience teaches me to operate in every case, however recent or chronic may be the attack, provided there is permanent or occasional dyspnœa of a severe character, evidently due to the fluid. I have, of course, more hope of doing good where the disease has not been of too long duration; is uncomplicated with phthisis, or any other disease, and where, moreover, the amount of fluid seems directly the cause of the trouble. I also deem it best to operate in *any*, even latent cases, where the pleural cavity gets full of fluid; and if, after a reasonable amount of treatment, the fluid does not diminish.

"The point originally chosen by Dr. Wyman and myself, viz., in a line let fall from the lower angle of the scapula, and between the 9th and 10th ribs, I deem the most appropriate point at which to make a puncture. I have, however, tapped under the axilla, or in the breast, where the case seemed to require it. In selecting the precise intercostal space, on the back, I usually choose one about an inch and a half higher than the line, on a level with the lowest point at which respiratory murmur can be heard in the healthy lung of the other pleural cavity.

"I never wait until *pointing* commences; for then I am sure that pus will be found. If *pointing* without opening has commenced, I do not necessarily tap in that place, as recommended by the older surgeons, but seek the most depending point in the chest. While thus desiring to operate before a *local* distension shows itself, I dislike or refuse to tap where there is contraction of the intercostal muscles; and I am certain of getting fluid only where there is distension or flattening of the same."

And in fine, "The operation, like everything else in all the departments of human life, is imperfect. It cannot cure all. But it has relieved many, and will continue to do so, if surgeons will use it; it has been the prominent cause of relief in many more, and will be so hereafter, if men will theorize less and act more. It has been the sole means of saving life, I am sure, in a few of my cases; and I know some patients have died within the last few years, in New England, as I believe, for want of it, under the care of others.

"It is certainly innocuous, and gives so little pain, compared with the relief it affords, that patients have begged for it to be repeated again and again, as a mere matter of relief. In my opinion it ought never again to be allowed to fall into disuse by the profession. I regard any man who allows a patient to die of dyspnœa from pleuritic effusion, however great may be the complications with other diseases of head, chest or abdomen, as in the dilemma of him who is either wilfully neglectful of some of the means of relief or cure, now by experience proved to be always at hand, or ignorant of the simple and beautiful operation suggested by Dr. Wyman. To a certain extent I deem my connection with the operation somewhat providential. I had seen, in the earlier years of my practice, men die with sudden dyspnœa, or, after months of obscure disease, die with one pleural cavity filled with serum, and not a particle of other disease; and, finally, I have seen tubercular phthisis follow, after months of debility, from what was simple pleurisy at first.

"Having no surgical tastes myself, shrinking from the simplest operations, and doing nothing of the kind save when compelled to do so, I at times urged surgeons to operate. They declined, and men died. Finally, in cases where I had control, I took the responsibility, and asked the surgeons to do the manual they were more accustomed to than I was. Their plan was incision and dissection down to the pleura, and a suppurating wound as a consequence—a long, painful operation. At last Dr. Wyman's instrument and method came to my notice. I seized upon them as those I had long sought for. As Dr. Wyman and I were the only believers in the operation, it devolved often upon me. The result is the experience which I have given above. And now, as I have often said, I would as readily puncture the chest as I would draw a tooth, or vaccinate a child."

TREATMENT OF DIPHTHERIA. *Mr. Editor,*—I copy the following from the *St. Louis Medical Journal*, January, 1861, deeming it worthy republishing. It was reported by Dr. Newman, President of the St. Louis Medical Society. AMOS SAWYER, M.D.

Hillsboro', Ill., Jan. 21st, 1863.

* * * * "Having heard that diphtheria was prevailing with great malignity in Lexington, Ky., I wrote to one of the physicians of that city, inquiring if there were any peculiar characteristics of the disease in that locality, and how far it was amenable to treatment, and what plan of treatment appeared best adapted, &c. Omitting to furnish any information upon general principles, he writes as follows as to his treatment.

"'DR. S. T. NEWMAN. LEXINGTON, KY., Sept. 29th, 1860.

"'DEAR SIR,—I received your letter a few days since, requesting my mode of treating diphtheria. In reply I would say, I give the muriate of ammonia in full doses, say, to a child 8 years old and upwards, ten grains every two hours (in solution), and ten drops of the sesquichloride of iron, in the intermediate hours; and these are not to be omitted for thirty-six hours; then rest four or five hours, and give them again in like manner. Continue this treatment for four or five days, according to circumstances, but at first cleanse the stomach with a gentle purgative; afterwards, should the bowels not act, once in twenty-four hours, give castor oil and ol. terebinth. one ounce of the former to one drachm of the latter. If the diphtheritic crust forms, or has formed to a great extent, in the throat, remove it with a fine sponge tied on a stick; the sponge should be wet with a solution of the pure nitrate of silver, 40 grains to one ounce of water, or sulph. cupri, one scruple to one ounce. This should be used only once a day. The cure should be completed by the use of tonics; I have found bebeerine the best. Diet nourishing. I have treated *three hundred and thirty-four cases* after this method, without *the loss of one,* and am now fully satisfied it is the proper mode of treating the disease. Respectfully yours, J. W. BRIGHT.'

"Since the receipt of the above, I have been shown a letter from a very intelligent merchant of that city, stating that the treatment of Dr. Bright had been eminently successful. S. T. NEWMAN, M.D."

A WRITER in the Washington *Daily Morning Chronicle* urges the reorganization at the present time of the Medical Department of the Army. After setting forth the immense labors of this department, the great responsibilities resting upon the surgical staff, and the importance of holding out inducements to men of the highest professional attainments to enter the public service, the writer makes some excellent suggestions for alterations in the present system, as follows:

"It has been estimated above that there are two thousand surgeons in the service, and at least one hundred thousand patients receiving their care. To the number of surgeons must be added that of nurses, ambulance corps, teamsters, cooks, &c., to arrive at the entire numerical force at the disposition and under the government of the department. This force has been estimated as high as twenty thousand; but for the present purpose, and to avoid exaggeration, let it be called sixteen thousand—a force equal numerically to a large division of the army, or to four brigades! The command of such a division embraces one major general, four brigadier generals, sixteen colonels, and sixteen lieutenant colonels. Is there not here found analogy by which to be guided in the reorganization of the medical corps?

"Giving to the Medical Department one major general, four brigadier generals, sixteen colonels, and sixteen lieutenant colonels, their disposition and authority might be determined according to the following plan:—

"1. The office of major general to be conferred on the surgeon-general, who, as the head of the department, would exercise all the powers that officer now possesses.

"2. Of the four brigadier generals, one, the senior, should act as assistant surgeon general, and the others be placed at the head of large armies, or have immediate superintendence over Washington or other city or locality, embracing many hospitals.

"3. Corps d'armée, small armies, and hospitals of lesser extent than designated above, to be controlled by colonels.

"4. The duties of lieutenant colonels might be found in divisions of corps d'armée and in the government of hospitals in extent corresponding to their rank.

"5. The abolishment of the offices of medical inspector-general and medical inspector, as the superior officers it is here proposed to create would exercise the functions of inspectors.

"6. The office of brigade surgeon, or, as it is now termed, surgeon of volunteers, which has the rank of major, to be continued. The number of this class of officers to be determined by the wants of the service. They could be assigned to brigades and hospitals, as at present. There might be two classes under this rank, as in the French service.

"7. Surgeons holding the rank of captains, first and second lieutenants, to be also appointed, and to have duties to perform suited to their qualification and experience.

"8. The office of medical cadet to be continued in such manner as will ensure the services of young men of good character and attainments, and who are desirous of qualifying themselves for the place of surgeon.

"The reorganization of this important department of the military forces of the United States, according to some plan similar to that here suggested, would be attended with results the most beneficial to the country. Individual merit would be encouraged, and the means of honoring it by promotion secured by it, and the grades of position and authority being symbolized by rank, would insure that 'order, vigilance and discipline' so necessary to the effectiveness of military operations."

MEDICAL GRADUATES AT YALE COLLEGE.—The following gentlemen received the degree of M.D. at the late commencement of the Medical Department of Yale College, at New Haven:—Judson Boardman Andrews, Mechanicsville, N. Y.; Albert Gordon Browning, Woodstock; Henry Sylvester Cornwell, New London; Marcus Brutus Fisk, Stafford; Newton Bushnell Hall, Branford; Cyrus Edward Humiston, Cheshire; Charles G. G Merrill, Newburyport, Mass.; William Chester Minor, New Haven; William Burritt North, New Britain; Charles Joseph Tennant, Franklin, N. Y.; Frank Benjamin Tuttle, Naugatuck.

ARMY MEDICAL INTELLIGENCE.—Dr. Edward B. Dalton, Surgeon of the 36th N. Y. Vols., has been appointed Medical Inspector of the 6th Army Corps.

Dr. A. W. Whitney, of Framingham, Surgeon of the 13th Mass. Regt., has been appointed Chief Medical Director of the 2d Div., 1st Army Corps, of the Army of the Potomac.

Dr. N. Mayer, of Hartford, Ct., has been appointed Surgeon of the 16th Conn., *vice* Dr. Warner resigned.

Dr. Henry Bostwick, of Bridgeport, Ct., and Surgeon in the United States service, died in New Orleans on the 31st ultimo.

Dr. John V. P. Quackenbush, of Albany, has been appointed Surgeon-General of the State of New York, Dr. Vanderpoel, late Surgeon-General, having resigned the office.

The number of sick and wounded in the hospitals in Washington, Georgetown and Alexandria, on January 16th, is stated to have been 9,959—a less number than for over a year past. There are 4,581 vacant beds in the hospitals. All the churches in Washington which have been used as military hospitals, except Trinity Church, have been restored to their respective congregations.

MEDICAL MISCELLANY.—Dr. Anderson has been chosen President of the New York Academy of Medicine, and Dr. D. S. Conant President of the New York Pathological Society.—The 97th Annual Meeting of the New Jersey State Medical Society was held at Jersey City on the 27th inst.—The 56th Annual Meeting of the New York State Medical Society will be held at Albany on the 3d of February—to be continued on the three succeeding days.—The births in New London, Ct., were 193 during the year 1862; deaths, 180, including five killed in battle. In Brooklyn, Ct., number of births during the year, 52; deaths, 36. In Preston, Ct., births, 50; marriages, 9; deaths, 46. In Abington, Ct., of 16 deaths in 1862, six were men between 70 and 93 years of age.—The late Dr. Harsen, of N. Y., whose lamented death was recently announced, left $10,000 as a legacy to the New York Eye Infirmary, of which institution he was one of the vice presidents.

DIPHTHERIA.—In our next issue will appear the first part of a valuable paper on Diphtheria, by Prof. Chapman, of Brooklyn, N. Y., to be continued in several succeeding numbers.

THE New York *Medical Times* publishes wood-cuts of no less than fifteen instruments found at the establishment of a notorious abortionist of that city. For whose special benefit this exhibition is made, is not stated.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JANUARY 24th, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - -	45	45	90
Ave. mortality of corresponding weeks for ten years, 1853—1863,	40.4	39.0	79.4
Average corrected to increased population - - - -	00	00	87.54
Death of persons above 90 - - - - - - - -	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
17	4	6	3	1	0	1	0

DEATHS IN BOSTON for the week ending Saturday noon, Jan. 24th, 90. Males, 45—Females, 45.—Abscess, 1—accident, 1—apoplexy, 2—asthma, 1—disease of the bowels, 1—inflammation of the bowels, 2—congestion of the brain, 1—disease of the brain, 2—inflammation of the brain, 2—bronchitis, 1—cancer, 1—colic (bilious), 1—consumption, 17—convulsions, 1—croup, 4—diarrhœa, 1—dropsy, 3—dropsy of the brain, 4—erysipelas, 2—fever, 1—scarlet fever, 6—typhoid fever, 1—hæmorrhage, 2—disease of the heart, 4—infantile disease, 6—laryngitis, 2—congestion of the lungs, 1—inflammation of the lungs, 3—marasmus, 4—old age, 1—paralysis, 2—puerperal disease, 1—smallpox, 1—disease of the spine, 1—inflammation of the mucous membrane of the stomach, 1—teething, 1—unknown, 4.

Under 5 years of age, 33—between 5 and 20 years, 8—between 20 and 40 years, 14—between 40 and 60 years, 21—above 60 years, 14. Born in the United States, 66—Ireland, 19—other places, 5.

TWENTY-SIX WEEKLY NUMBERS—FEBRUARY TO AUGUST, 1863.

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PRACTICAL OBSERVATIONS ON, AND THE TREATMENT OF, DIPHTHERIA, WITH ILLUSTRATIVE CASES.

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[Communicated for the Boston Medical and Surgical Journal.]

It is not our purpose, at this time, to attempt an essay—historical or therapeutical—on Diphtheria; or a synopsis, even, of the multitude of facts, collected with much industry by many observers. At this late day, such a labor—following the ample descriptions of Bretonneau and Greenhow, the recent lectures of Trousseau and Clark, and the many articles in the current medical literature—would be not only uncalled for, but, most decidedly, devoid of any practical utility. We aim at a much humbler task—simply the recording of our own observations, together with the details of cases, and the various modes of treatment adopted; whence we have arrived at conclusions somewhat at variance with those generally entertained by the great body of medical writers.

It may, perhaps, be proper to state, that our opportunities for studying this disease have been ample; since, in addition to those presented in private practice, we have enjoyed the extended field afforded by the Out-Door Department of the Long Island College Hospital, where from 15 to 35 patients are treated daily. In this institution my colleagues, as well as myself, made trial of the many medicinal agents that are extolled by writers as possessing a decided and marked power over this alarming disease; yet, notwithstanding the care with which the patients were watched, our success was so unsatisfactory as to render us sceptical of the value of drugs in cases of any severity. These, with an equal, steady step, advanced to a fatal issue, unchecked by the means at our disposal, if not hastened in their downward march by abortive efforts to subdue the local inflammation and remove the membranous exudation. At length, through a lesson learned at the bed-side, as will appear in the sequel, a doubt of the principles by which hitherto I had been guided took possession of my mind, and led me to adopt a different plan of treatment.

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* The following article, excepting the recent cases and certain additions under the head of treatment, was written a year ago, when diphtheria was generally treated as a local phlegmon. [illegible], a tonic, sustaining course has taken the place of antiphlogistics; and it is to be hoped that free stimulation will soon be the general practice.

It requires a certain boldness to question long-cherished opinions, with which our minds have become indoctrinated, and, thenceforth, carry our investigations beyond the narrow circle that has hitherto bounded our mental horizon. We hold certain doctrines in regard to fever and inflammation, and, also, in regard to the remedies best calculated to reduce vascular action, and prevent or remove one of its results—an exudation of plastic lymph—so incorporated with what we know of disease as to give a coloring—a bias—to all we see or learn at the bedside. These doctrines ceased, long since, to be debatable; in fact, have assumed the important position of principles and axioms in medicine. It appears absurd and irrational to ply a patient with brandy who has a high fever, hot skin, rapid pulse, &c., and whose throat is closed from an acute inflammation and covered with a fibrinous exudation—unerring symptoms of high action. Reason—*the only guide in a sound medical practice*—points out two very plain and evident indications to be fulfilled; to wit, subdue the fever, and remove the inflammation with its attendant exudation. Hence two plans of treatment—the general and local—are in favor, and are enforced either singly or united: the one is carried out by antiphlogistics, such as purgatives, leeches, mercurials, &c., or by certain supposed specifics, as the chlorate of potash, for example; and the other by a variety of astringent and caustic applications, the chief of which are alum, nitrate of silver and nitric acid. As will appear hereafter, from the record of our cases, we became so impressed with the powerlessness of these means to withstand the onward march of the disease, that we determined, by a bold and sudden change, to discard these systems of medication, and commence the free, liberal use of stimulants at the outset of the disease, however high the fever, or swollen and inflamed the tonsils. With some hesitation and many misgivings, I made the first trial, supported by the reflection that this new course, however preposterous it might appear, could not increase the hazard surrounding the patient, or redound more to my mortification. Notwithstanding the fact that a homœopathic physician in our neighborhood *laughs* at Diphtheria, and the still harder fact that the science of numbers—skilfully handled—gives us an encouraging report of cases, with but a trivial mortality; still, I am certain that in this place, at least, more than one fourth of those attacked have died; and that, of the malignant cases, the great majority have ended fatally. The experience of our physicians who discriminate their cases and are careful and trustworthy in their diagnosis, confirms this assertion. Any greater success has been due to the avoiding of lowering, antiphlogistic remedies, and the adoption of a plan more or less invigorating and supporting. Formerly, I entertained as great a dread of

Diphtheria as of Asiatic cholera; but, since the adoption of a stimulating treatment, I have gradually acquired a renewed confidence in remedies—a confidence so great, that I give place to the hope that this course of medication, when generally followed, will rob this frightful disease of much of its terror. This hope is greatly strengthened by the encouraging reports of my late colleagues, Drs. Clark and Davol, which confirm my observations. You may resort to quinine and brandy in stimulating doses, at the outset of this disorder, with something of the assurance and reliance that you meet an intermittent disease; and, according to my experience, a malignant miasmatic fever is no more amenable to the power of cinchona, than an equally malignant diphtheritic state of the blood is to that of stimulants. In both diseases we must strike boldly and promptly, if we hope for success. Every moment is valuable, and the hour for active interference is passed, when sinking and prostration announce the constitutional powers tottering and subdued; since we well know that the power of medicine is relative, not positive—indirect, not inherent—and merely acts by calling out the reserved forces of the system. In all diseases we cannot too closely watch the workings of the great vital organs, nor too carefully note the condition of the ganglionic nerve centres, or that of digestion, assimilation and nutrition; for by the harmony and perfection of each part in its sphere is accomplished that mysterious phenomenon which is called life. This vitality—a condition common to everything living—exalts the recipients above the laws of matter, and places them in opposition to the laws of chemistry and the thousand other physical forces that tend to their destruction. When this vitality, or the power which upholds living organisms, is subdued, and our bodies are rapidly succumbing to chemical and physical disintegration, as shown by a *dissolved state of the blood*—so termed, not inappropriately, by the old writers—there is nothing left to respond to our remedies.

Within the last few years the careful trial of different modes of treatment, whether rational or no, has done much to enlighten us as to the pathology of a number of diseases hitherto, and even now, too often treated with lowering remedies. For example, in phthisis, where there is a local inflammation around tubercular matter, the formation of pus, ulceration, &c.; bleeding, leeches, blisters, antimony, iodine, confinement and low diet have given place to nutrients, stimulants, air and exercise, to the great gain of humanity. In scrofula, in its hydra-headed forms, though the patient may have all the appearances of robust health—be even full-blooded and well developed—we have at last discovered that inflammation is not to be met by the usual means, which we enforce with such signal success in constitutions untainted by this vice. The inflamed eyes peculiar to such subjects will, however high the local excitement or fever, be rendered worse by depletion, antiphlogistics and mercurials, and often show prompt amendment under the use of animal food, wine, quinine, &c. This is true of all the diseases pertaining to the scrofulous diathesis. They do not originate from external causes, but owe their rise and continuance to a defect in the vital organs. Hence it is that local applications can be of no avail while the fountain is poisoned; but when the blood, nervous centres and each organ are brought up to the normal standard, and the vital elaborations are made to go on harmoniously, diseases will disappear, or, if they linger locally, will now be benefited by appropriate applications. It is inconceivable, the amount of harm that has resulted from lowering remedies in scrofulous patients; and, even at the present time, through a bias from a life-long struggle to subdue fever and inflammation, many of our professional brethren are loth to forsake old, established opinions, or to confess that facts are more valuable and trustworthy than reason. What but the slow, tedious schooling of facts, taught us, long since, in cancer, malignant pustule, gangrene, sloughing ulceration, phagedæna, and the like, that the part affected is not more at fault than the entire system—is merely the site of a constitutional vice—and that these diseases are not to be subdued by the remedies for inflammation, or eradicated by caustics or the knife?

In variola, rubeola and scarlatina, the hope is no longer entertained of cutting them short by active interference, or of modifying, materially, their stages; but, on the contrary, we now patiently trust to the natural powers, whilst these are competent to the task; and only lend assistance when they give way, or show signs of an inability to withstand or eliminate the *materies morbi.*

In typhus and typhoid fevers, and, in fact, all others of a low type, experience has taught us that a reducing plan of treatment is not to be relied upon; that we must anticipate the coming debility by a supporting regimen and medication, regardless of the febrile excitement, congestions, &c., or at the most view them as of secondary importance; and fortify the vital powers for the final struggle, when the circulation becomes poisoned and the nervous system prostrated.

In this class of diseases our attention should not be occupied with the complications and symptomatic manifestations; but, rather, we should strive to reach the heart of the matter—the real disease—which, when removed, will carry in its train its various attendants and accessories.

Rheumatism is another notable example of a disease illustrating the principles of practice advocated above. Bleeding, calomel, purgatives, blisters, &c., long battled with the fugitive enemy with ill success. At length, by experiment, it was discovered that alkalies, by neutralizing the acid element in the blood, remove, so to speak, the very food that sustains and keeps alive the disorder.

There cannot be a reasonable doubt that Diphtheria belongs to this class of blood-diseases. Ostensibly it is an ailment of the throat, attended with inflammation and the effusion from the capillaries of coagulable lymph. So, also, rheumatism presents the appearance of an inflammation of the ligamentous structures; scrofula, of the glands, bones, &c.; syphilis, of the skin, mucous membrane and periosteum; and variola, rubeola and scarlatina, of the skin alone, whence they have been improperly classed under the head of cutaneous diseases.

The pathology of Diphtheria is not elucidated by autopsies, nor by chemical or microscopical examinations. No special structures are invaded, or characteristic lesions discovered; only everywhere is found a dark, grumous blood, filling equally the veins and arteries, and stagnated in various organs. MM. Millard and Peter first pointed out that the blood was of a dirty brown color, resembling liquorice juice or water containing a mixture of soot.

During life there are conclusive proofs, in the malignant cases, of a poisoned, disorganized condition of the circulating fluid—the dark, grumous blood oozing from the tonsils when roughly touched, the spontaneous hæmorrhages, the muscular weakness, the prostrated nerve-power, the clammy sweats, the rapid, soft and shaky pulse, the sphacelation in the fauces, the sequelæ—anæmia, paralysis, &c.—the gradual sinking of the patient, and the extinction of life without an effort at reaction, or the slightest tokens of constitutional resistance. The evidences of a blood-contamination, equal to those seen in typhus, are infinitely greater than those presented in other diseases now universally conceded to arise from this cause. Chemistry detects no material poison in the air during a diphtheritic epidemic, nor any foreign element in the blood, or any change in its constituents, where patients have died of this disease. The changes, and the agencies producing them, whatever they may be, are inappreciable by this means of investigation.

The enlarged vision afforded by the microscope likewise reveals no sensible alteration in the blood; and the naked eye, which recognizes the fact of the transudation of the liquor sanguinis, and its concretion into a pseudo-membrane, gives us equal information with the most powerful glasses. The fibrillæ, granules, pus-cells, &c., that are found, are not distinctive; and the much talked of algæ are frequently seen on mucous surfaces when covered by morbid secretions. Their ova exist in the atmosphere at all times, but are not developed unless a favorable nidus is presented.

From these purely scientific investigations, so rude in comparison with the finer operations taking place in living organisms, we, in this instance, can gain no light, and are obliged, perforce, to learn the true nature of Diphtheria by actual observation in the trial of various modes of treatment. If the free use of stimulants, in the beginning and height of the disorder, subdues the fever, removes the inflammation, causes the membrane to fall, prevents relapses, and, in a word, accomplishes a cure at once rapid and permanent in almost every case where the treatment is commenced early, we must be forced to the conclusion that Diphtheria is a disease of low action—ataxic—and that the inflammation attending it is certainly not idiopathic and active. This is further shown by the greater success following this mode of treatment than any other; and by the significant fact, that malignant cases thus usually escape the *dissolved* state of the blood, and paralytic accidents are, by the same medication, easily remediable.

The cause of Diphtheria is an interesting theme for speculation. There need not be a material agency—a septic poison in the atmosphere—as is the general opinion; which, received into the blood, multiplies itself, like a ferment, and thus contaminates the entire circulating mass; since a change in the normal constituents of the air, or a variation in its electric condition, might render it less adapted to fulfil its part in the transformations constantly going on in the lungs, whence would arise a defect in the vital elaborations of the blood. A faulty state of the atmosphere—one that imperfectly supplied the blood with the influence necessary to its constant renewal—would be scarcely felt by the strong and robust, but would tell with the most effect on the debilitated or those of little vital power. In our experience, the subjects of Diphtheria are, almost universally, children; and when it attacks adults, those of little stamina are singled out, who at the time are suffering from unusual exhaustion. Of the former, those inheriting a scrofulous constitution, or any other vicious state of the system, are the ones, as a rule, that are seized. The child has not only to maintain the body *in statu quo*, like the adult, by the constant renewal of the worn-out materials, but also to provide for growth and increase. Hence children inheriting any depravity of the constitution are always pale, debilitated and sickly, and prone to disease; though, should they survive to mature years, they frequently become strong and robust.

That an inappreciable relationship of the atmosphere may render it less fitted to effect the constant changes and renewals of the blood that take place in the air vesicles, and less adapted to elaborate and vitalize it, particularly where there is a defect in the powers of the individual, is more apparent when we recollect that the circulation is the medium for the ingress and egress of all the new and effete materials of nutrition; that constant changes are here going on, affected by living structures; that the blood circulating in its vessels is organized equally with the solids; that in both solids and fluids, by the agency of cells, absorption, assimilation and nutrition are effected. A dissimilarity between the solids and fluids is apparent, not real. The blood-globules or cells are not fixed in one locality, like the cells in the tissues, but are designed, from their office, to float in their nutritive plasma. Hence any noxious material in the blood, or any impediment to its vital transformations, will, equally with changes in solid structures, engender disease. That the cause of Diphtheria is not an animal or vegetable poison, but a state of the air that impairs the vital status of the blood, is further shown by the following considerations. Diphtheria prevails in all seasons and climates, equally in primitive or miasmatic regions, equally in well-cleaned streets, among the better classes, or in courts and alleys among the victims of want and vice; indeed, filth, poverty, vegetable and animal effluvia, do not increase its virulence or cause its dissemination. It is not self-limited, has no fixed stages of increment and decline, may recur several times, does not attack indiscriminately, but, as a rule, singles out scrofulous children, or at least individuals whose constitutions are reduced and blood impoverished; and, more than all, Diphtheria is not inoculable. M. Trousseau introduced the exudation into his arm and tonsils; and M. Peter inserted it into his lips, rubbed it over his fauces and had it coughed into his eye, without any bad result. In fine, we have no evidence that Diphtheria is contagious, or in any way passes from one individual to another. My observation teaches me that, though more than one of a family may be attacked simultaneously, or within a few days of each other, the disease is not communicated to visitors, or to other families in the house. It might be expected that, of a number of children of like organization and habits, breathing the same air and eating at the same table—or, in other words, having identical susceptibilities and similar surroundings—more than one would be attacked at or about the same time. Generally, however, cases of Diphtheria occur here and there in distant localities; whereas, had contagion any influence in the matter, the disease would not be thus limited, or its victims far separated. Diphtheria has undoubtedly occurred at all periods, and in all countries of the world; but from the low intensity of the causation, the disease, except in epidemic seasons, has been confined to isolated cases. Aside from croup, that may owe this origin, many cases of scarlet fever have ended fatally on the appearance of the diphtheritic exudation. With these preliminary observations, I will now give the details of the most interesting cases that have fallen under my notice.

[To be continued.]

STUDIES OF ABORTION.

By Horatio R. Storer, M.D., of Boston.

[Communicated for the Boston Medical and Surgical Journal.]

I.

In a series of papers published in 1858–60,* the writer had occasion to discuss abortion in one only of its several aspects, that relating to medical jurisprudence. The general interest then evinced in his labors by the profession both at home and abroad, the approbation and encouragement he received, even from gentlemen who took decided issue with some of his views, and above all, the practical result of the whole matter (which has proved precisely that aimed at in the outset), namely, the awakening of the public conscience, the enlightenment of the public mind as to the value of fœtal life and the vindication of the character of the profession on this point alike in its own sight, that of the law and of the community, by the unanimous voice of the medical press,* are all convincing evidence of the importance and legitimacy of the investigation. This, however, though handled with all the ability I was then master of, was not exhausted, and it may perhaps be resumed at some future period.

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* Proceedings of the American Academy of Arts and Sciences, Dec., 1858, vol. iv., p. 109.
North American Medico-Chirurgical Review, January to November, 1859.
On Criminal Abortion in America. Lippincott & Co.; Philadelphia. 1860. Pp. 107.

In the present papers I wish to enter the field of abortion from an entirely different direction, that pertaining to obstetrics alone; and I think that it will be made to appear that here also there is much of interest that has not been generally appreciated, many practical questions to be stripped of uncertainties and to be solved. While, therefore, I have above referred to the criminal aspects of abortion in a way I would gladly have made less personal, it is that I may the more forcibly present beforehand the importance of the research now undertaken, and ask for it immunity from any bias that former opposition might occasion.

In no department of medicine has such immense progress been made of late years as in obstetrics. Not merely have its theoretical and more strictly scientific boundaries been widened, but as an art, in practical every-day results, it has accomplished more in saving human life than any other branch of the profession. In the treatment of all the stages of labor at the full time this is now an acknowledged fact, and is proved both by the results of individual practice and of mortuary statistics, as compared with former years; and whether I instance the suppression of puerperal fever by recognizing its contagious character and the necessity of attending to an obvious sanitary law; the greater abstinence from meddlesome midwifery; the judicious use of anæsthetics in shortening labor and suppressing or preventing puerperal convulsions; the separation of the placenta in presentation of that organ; the substitution of turning and the long forceps for craniotomy; or the induction of premature labor when required, the accoucheur may feel a great and reasonable pride. What I have here stated as the result of closer and more thorough study of the processes of labor at the full time, I now claim may be also accomplished in the case of abortions; which, as a general rule, while always when completed necessarily implying one death, that of the child, are also generally more fatal to the subsequent health of the mother, and I think I may even say as fatal, on the large scale, to her life, as labors at the full period.

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* In verification of this statement, I refer to the current files of every medical journal, to the published Transactions of the National and minor Medical Associations, to many medical addresses, as that by Dr. Miller of Louisville at New Haven in 1860, and to nearly every general obstetric work of any importance issued in this country since that date—Bedford's Principles and Practice of Obstetrics, for instance.

The causes of an immediately or secondarily fatal result of labor at the full period are few; in abortion nearly every one of these is present, with the addition of others peculiar to the sudden and untimely interruption of a natural process and the death of the product of conception. There is the same or greater physical shock, the same or greater liability to hæmorrhage, the same and much greater liability to subsequent uterine or ovarian disease. To these elements we must add another and by no means unimportant one; a degree of mental disturbance, often profound, from disappointment or fear, that to the same extent may be said rarely to exist in labors at the full period.

Physicians as yet are hardly agreed as to the essential nature or natures of the accident, it would seem to occur from so many and varying causes, and yet it is extremely important at the very beginning of this inquiry that our ideas upon this point should be settled and correct; and then again it is of the utmost value to distinguish between proximate and predisposing causes. How different, for instance, the nature of abortions arising from mechanical violence, external or internal; from a general virus pervading the maternal or fœtal system; from disease of the uterine walls, or of the placental tissue, or the accidental extravasation of blood between them; and how different the treatment should be, though so generally the same.

In the diagnosis, also, of abortion there is the same latitude to be observed, and the error that may be made is one involving not merely the reputation of the attendant as a skilled obstetrician, but the life of the patient, often also her moral character. To these chances must be added also the possibilities of preventing the completion of the morbid process, and thus of frequently saving the life of the child. In cases of secondarily transmissible diseases, as syphilis for instance, it will be seen that these inquiries receive remarkable importance as affecting the reputation and moral standing of persons who would have otherwise seemed the least liable to suspicion.

There is scarcely a phase of uterine or ovarian disease that may not simulate, or be simulated by, some form of abortion, common or extreme; and there is scarcely one that may not induce or be induced by the same disturbance of gestation. How often has abortion been mistaken for dysmenorrhœa or menorrhagia, and again how many virtuous women laboring under these irregularities of function have been charged with a breach of moral discipline. In like manner has the partially detached ovum been mistaken for polypus, the expulsive contractions of the uterus for intestinal flatulence, the cachexia from retention of a dead and putrid fœtus or membranes for malignant or other incurable disease.

If, as I have said, extreme importance attaches to the correct differential and causative diagnosis of abortion, this is essentially the case also with its treatment. And here I affirm that the duty of the physician is in most cases not, as is generally attempted, to complete the abnormal process as soon as possible, but to arrest it; for I am satisfied, from my own experience in very many cases were there no other reason, that this can often be done even in cases apparently desperate as far as the fœtus is concerned, and yet its life be saved. Should, however, the expulsion of the ovum be already effected or be beyond prevention, it becomes of the utmost importance that the accident should be thoroughly completed; the interesting cases bearing upon this point that have been reported in this city will be referred to hereafter, as they constitute, with those published during the present month by Dr. Matthews Duncan, of Edinburgh,* a most important contribution to our knowledge of the subject.

But the abortion completed, there is an immense field for exploration still open. The frequent or constant repetition of the occurrence in the same patient, whether from menstrual periodicity, original or acquired disease of mother or fœtus, suggest questions alike of scientific and the most strictly practical interest, and it is just here that professional reputations are to be made. I firmly believe that most if not all of these periodical cases, whatever their intrinsic nature or exciting cause, are yet to be cured and their character to become thoroughly understood. Several of the problems alluded to have already been explained; oxygenated salts prevent abortion when depending on certain forms of placental disease—a specific constitutional treatment, it may even be of the husband, enables in other cases a subsequent pregnancy to progress without hindrance. These facts merely open the subject, while proving, however, what grounds we have for expecting ultimate and general success.

Before proceeding further, one erroneous supposition, arising from easily explainable misstatements, is to be met and dealt with. It has been assumed by some, and on the authority of writers of repute, that abortions from other than a criminal cause are really very rare. I will instance Churchill, who probably holds at present, and very deservedly, the foremost rank as obstetrical authority in this country. He states, striking an average from statistics afforded by Collins, Beatty, Deubel, La Chapelle and himself, that there are over seventy-eight labors at the full time to every abortion.† The same result is also given, from precisely the same data, by Dr. Clay, of Manchester, England, of recognized weight as an obstetrical writer.‡

This statement I shall now proceed to refute, by the very evidence these gentlemen have produced for its verification. For this purpose I have thrown their statistics into the following tabular form:—

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* On the Results of Imperfect Deliverance. Edinburgh Medical Journal, January, 1863, page 589.

† Theory and Practice of Midwifery, 4th London Edition, p. 167.

‡ Obstetric Cyclopædia, p. 21.

	Total Cases.	Abortions or premature labors.	Proportion of do.
La Chapelle . . .	21,960	116	1 to 189
Beatty	1,200	21	1 to 62
Collins	16,414	293	1 to 56
Churchill	1,705	65	1 to 26
Deubel	420	35	1 to 12

By the above it is perceived that while one observer placed the frequency of abortions as low as once to every 189 labors, another, who was probably just as unbiassed, supposed it to be once to 12, a difference of over seventeen fold; while Churchill himself, though broadly stating the proportion to be once to over 78 labors, in reality had found it by his own experience to be at least once to every 26 labors, or in other words precisely three times as frequent as he would have us to believe.

Again: in striking the average from a large number of cases collected by different observers in different countries, allowance must be made, as in all other researches of the kind, for what in astronomical language would be termed the personal equation of the observers; that is to say, for their general accuracy, their weight as authority, and the purpose, more especially, for which the observations were made. The differences between the several observers in this instance, as evidenced by their results, is so very marked as to render it impossible for us to sum these together.

Moreover, to render an average, computed from more than three elements, of probable approximation to the truth, it is necessary that the proportion should regularly progress, positively or negatively, towards either extreme; that is, that there should be present some evident ratio or law of increase or decrease. But, on referring to the table presented, it will be found that while Madame La Chapelle, Collins, Churchill, Beatty and Deubel, as regards their total number of cases presented, stand to each other as the numbers 1 : 2 : 3 : 4 : 5, their respective rate of proportion of special cases to their sums total is as 5 : 3 : 2 : 4 : 1. Viewed in this light the unreliability of the average becomes the more evident.

This is not all, however. The writers referred to, as indeed most others, have not taken care to eliminate those cases of advanced pregnancy which should more properly be classed as premature births, as distinguished from the earlier cases, or abortions properly so called. The importance of taking this element into consideration will be seen both from its own intrinsic value and from another fact pertaining to the same collection of statistics; namely, that being mostly compiled from the records of lying-in hospitals, these cases would very naturally and almost of necessity be miscarriages at an advanced period of gestation, and therefore can furnish no reliable data on which to base an estimate of the comparative frequency of abortions.*

The fallaciousness of medical statistics in the settlement of questions of importance is seldom more marked than in this instance. Compiled for an entirely different purpose, their impartiality on this account cannot be appealed to, inasmuch as they do not contain the only element on which an opinion can be grounded as to the frequency of the occurrence, even in hospital practice alone—to wit, the number of abortions properly so called, and distinguished from premature births; and yet the conclusion drawn from such erroneous premises has been, till now, suffered to remain unchallenged.

Lastly: the infrequency of abortions as compared with labors at the full period is disproved by the experience of every physician in special or large general practice who will faithfully investigate the subject. The truth of this statement has been fully verified in the instance of abortion criminally induced, by many of my professional friends who were at first inclined to doubt the accuracy of my inferences on that point; with reference to abortions more naturally occurring, the evidence is of course more easily arrived at and is in consequence proportionately more striking. In many cases of sterility it will be found that the number of abortions in a single patient have been almost innumerable; and, it may be added, in a large proportion of the cases of uterine disease occurring in the married, inquiry as to their past history will reveal abortions, unsuspected perhaps even by the family physician, as the cause. It is not so much the general practitioner, the hospital attendant, or the accoucheur as such, who can testify as to the true frequency of abortion; for many cases, even of the most deplorably fatal results, do not seek for medical assistance at the time of the accident. The real balance sheet of these cases is to be made out by the hands which are more especially called to the treatment of chronic uterine disease.

Hotel Pelham, 25th January, 1863.

Army Medical Intelligence.

Hospital Notes and Memoranda. By J. Baxter Upham, M.D., Surgeon in charge of Stanley General Hospital, 18th Army Corps, Newbern, Department of North Carolina.—This hospital was established about the 20th of November last, and was originally intended as the winter quarters of the "Hammond General Hospital," which had been in operation during the summer months at Beaufort, the seaport town of the Department of North Carolina. The great accession of troops to General Foster's command during the autumn, however, caused a change in the original plan, and it is to be made a permanent institution, so long as the town shall remain in possession of our army. It has been named the Stanley General Hospital, in honor of Edward Stanley, Military Governor of the State, and is at present by far the largest military hospital in the Department. The grounds and buildings now occupy nearly an entire square, in the heart of the town, comprising among others the old Stanley Estate, late Headquarters of Gen. Burnside and Staff. In addition to several private residences and their accessory buildings converted to hospital purposes, a series of wooden buildings have been constructed, in accordance with plans submitted by the Medical Director, Dr. Snelling. They are built in the pavilion system, with roof ventilation, the outer air being admitted through gratings fixed at convenient distances in the floor, and finding its exit at the ridge, and are ample, convenient and comfortable alike to patients and attendants. Thus constituted, the hospital will accommodate about five hundred and twenty patients, allowing to each the quantum of air required by the Surgeon-General in his circular of November 24th, 1862.

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* In this connection, I would refer to an interesting paper by Mr. Whitehead in the Medical Times and Gazette for the past month, and to a most comprehensive article upon "The Bar Sinister" in the British and Foreign Medico-Chirurgical Review for the present month.

Attached to the hospital proper, and centrally located with respect to the whole, is a refectory or common dining hall for convalescents and attendants, and immediately connected with this refectory are the commissary store-rooms and kitchen; the latter provided with the Baltimore stove-ranges, with furniture and appliances complete. In the kitchen is hung up the Diet Table, arranged for each day in the week in the manner required by "Regulations." There is, in addition, an extra-diet kitchen, which is under the immediate and special supervision of the Sisters of Mercy. Knapsack and linen rooms and a wash room and laundry are duly provided for. A dead-house is in process of construction.

A corps of six surgeons and assistant surgeons form, at present, the hospital staff. The subordinate officers are—a hospital steward and his assistant, a ward-master and assistant ward-master, an apothecary, two clerks, one nurse to every ten, and a cook to thirty patients, and eight matrons employed in the capacity of laundresses and washerwomen. This hospital is fortunate, also, in the possession of the care and supervision of a small band of Sisters of Mercy, from the Convent of St. Catherine in New York, whose self-sacrificing devotion to the sick and wounded cannot be over-estimated.

The hospital buildings and their accessories are apportioned into divisions, which are subdivided into wards and sections, having each its corps of nurses, cooks, &c. Over each division, eight in number, is placed a chief nurse (called the hospital orderly), who is held responsible, under the steward, for the care and discipline of his particular department. To the Sisters of Mercy is entrusted the oversight, generally, of the domestic department of the hospital in all its branches.

There is attached to the hospital a trained ambulance corps, composed of forty men, selected mainly from among the nurses and other employees, who are accustomed by careful drill and practice to handle and transport, with as much ease and comfort to the sufferer as his case will admit of, such sick and wounded men as it may come within the province of the hospital to care for in this respect.

The hospital supplies derived from Government and the Sanitary Commission are ample and abundant. So far, the ratio of mortality of the sick and wounded has been small; and it is hoped that, with the increased facilities furnished by the rapidly enlarging force concentrated in the Department, the great and essential object of a military hospital on a large scale, viz., the restoration of health and to the service of the greatest number of patients, with all possible comfort to themselves and economy to the Government, will here, as elsewhere, in the end be well fulfilled.

Bibliographical Notices.

Der typische Frühsommer Katarrh, oder das sogenannte Heufieber, Heu-Asthma. von Philipp Phoebus, Dr. d. Phil., d. Med. u Chir., &c. Giessen. 1862.

The Typical Early-summer Catarrh, or the so-called Hay-fever, Hay-Asthma. By Philip Phoebus, Doctor of Philosophy, Medicine and Surgery, &c. Giessen, 1862.

The author, who occupies a prominent position in the Medical Faculty of the University of Giessen, was consulted, in the spring of 1859, by a medical friend as to the nature of the affection commonly known as "hay-asthma." This was to him a wholly unfamiliar disease, and his curiosity being stimulated, he applied himself to a diligent investigation of its nature, origin and course. Besides consulting all that had been written on the subject, he established a correspondence with medical men the world over, and, in cases where it was possible, put himself directly in communication with those subject to the affection. The result of his labors is the work before us—a monument of patient industry. Rarely has a task been approached in a spirit of more earnest inquiry, or with a more entire absence of all preconcerted theory, than in the present case. And though notes of but 158 cases, only 46 of which were minutely described, compose all the material which our author has been able to collect, a basis has yet been formed for a series of most valuable inferences and observations.

Our notice of the work is necessarily brief. Desirous, however, of calling attention to such a valuable contribution to medical literature, we will refer to a few of the more prominent divisions of the subject. Professor Phoebus thus defines the affection:—

"England has taught us to recognize, under the names 'summer catarrh,' 'hay-fever' and 'hay-asthma,' a (nervous) catarrhal affection which attacks in the early part of summer those liable to its influence. The number of these is strikingly small. The attacks last from six weeks to two months, during which the disease is subject to remarkable fluctuations, varying in severity on different days. It affects the nose, eyes, pharynx (from the base of the cranium to the commencement of the œsophagus), head, respiratory passages and general system. The remainder of the year its influence is not at all or very little felt."

The symptoms are divided into six groups, corresponding to the six parts just mentioned. Each of these groups or classes is carefully described.

We find that the disease makes its appearance generally from the middle of May to the first of June, that its duration is from six to eight weeks, and that some are subject to a second short attack in the latter part of the summer. The result (except in one rather doubtful case) has never been known to be fatal. It occurs generally for the first time at an age varying from five to forty, and, once established, returns at nearly or exactly the same period each year, with unvarying regularity. A change of climate but seldom wards off the disease, and its duration is life-long.

The author's researches into the causes producing the affection are in the highest degree interesting and instructive. A certain predisposition always exists, this predisposition consisting in a peculiar susceptibility of the mucous membrane and nervous system. The subjects are generally otherwise healthy, and almost always of the upper classes. What are generally recognized as exciting causes act only where the predisposition exists. Among these are enumerated the first summer heat, strong light, the fresh blossoms of sweet-scented grass, rye, roses in bloom, hay, the pollen of all flowers, dust and thick fogs. Our author lays special stress on the injurious effects of grasses which either diffuse a profuse amount of pollen or emit a powerful scent, especially if they possess either of these properties at the time of the first hot summer weather.

The author expresses his obligations to, and cites at some length a communication from, Dr. George Hayward, of this city, on the subject of rose-cold and hay-cold, or hay-asthma, similar affections, but differing in severity and the time of occurrence. The latter form of the disease Dr. H. states to be the more severe. It generally commences about the middle of August and lasts six or eight weeks. A very interesting case is given at some length.

Substantially, it appears that the affection is the same in this country as in Europe, but it occurs in its severer forms at a more advanced period of the summer.

That portion of the work devoted to treatment is the least satisfactory of the whole. All methods are carefully enumerated, all appliances that may mitigate the severity of the attack are faithfully described, but it is easy to see that the author has little faith in any particular course of treatment for either warding off the disease or checking its career. He has, however, enumerated and discussed all the methods of treatment that have been recommended or suggest themselves as likely to prove beneficial, with a no less faithful diligence than he has devoted to the other portions of the work.

One theory of treatment seems to us, however, to particularly merit attention from a few facts that have come under our individual observation. The predisposition of the disease being admitted to consist in a peculiar susceptibility of the mucous membrane and nervous system, we find, on page 216, a section devoted to those agents that may suffice "to excite, to arouse to greater activity the nervous system." Under this head camphor and strychnia are mentioned as having produced good results, the latter by several observers. Others, however, deny its efficacy, and the author himself observes that the physician is hardly justified in treating "an affection, which, however burdensome, is still devoid of danger, by an agent the administration of which—if not absolutely dangerous—still requires a supervision so constant and unremitting as to annoy our patients." We submit that the tincture of nux vomica may be given to adults in the dose of ten drops three times a day, and continued for several days, without giving occasion for any special anxiety as to the possible effects of the medicine. And we are able to cite three cases of the affection, two of them in our own family, where the disease comes on every summer with unvarying regularity, and is as regularly arrested in the outset by this simple remedy. H. D.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, FEBRUARY 5, 1863.

In commencing a new volume of the Journal, we are happy to announce to our readers the accession to the editorial department of Dr. James C. White, of this city. Dr. White has been heretofore a contributor of valuable articles to our pages, and we feel assured that his more intimate connection with us as Editor will be recognized by all as promising to add greatly to the interest of the Journal. To those who know our associate, even this much need not be said; those who do not, we refer to the future for confirmation. We enter upon our new volume under circumstances in other respects far from encouraging. The war, while it furnishes us with much matter of painful and instructive interest, leaves little pecuniary inducement to continue our labors. We feel, however, that the medical profession of New England ought to have a way of utterance open to them, and we trust still to keep on our path unshaken by the storms which threaten to overwhelm us. We confess to an honest pride in the Boston Medical and Surgical Journal as the oldest medical weekly in the country, and our desire is unabated to keep it in the front rank of medical publications. We wish it to be the expression of the soundest wisdom, the highest science, the most generous philanthropy and the truest professional honor; to our professional brethren we look for their cordial coöperation.

Seventh Annual Report of the Trustees of the State Lunatic Hospital at Northampton.—We have read this admirable report with sincere gratification. It bears the stamp of faithful service in all connected with this institution, the trustees as well as our esteemed friend the Superintendent, Dr. William H. Prince. From the report of the former we learn that this hospital has been during the past year self-supporting, at the same time that the necessary comforts and embellishments of so large an establishment have been supplied in all needful measure. The trustees express renewed confidence in the Superintendent and all associated with him in the government and management of the hospital, and the most entire approbation of their administration of its affairs.

Passing on to the Superintendent's report, we find it full of matter of the deepest interest. It is no common-place, matter-of-fact performance, written because it is a task to be performed once a year, but it plainly comes from the heart of a sincere and ardent philanthropist, who writes from the deepest personal interest in the unhappy objects of his charge. No one can read this report without being more profoundly impressed with the melancholy condition of the unhappy victims of mental alienation, nor without admiration for the humanity and self-sacrifice of those members of our profession, who, like its worthy representative in the present instance, give themselves up to the arduous labors and responsibilities which the care of them involves. Where all is so good, we hardly know where to begin to make extracts: we should be glad, if we could, to lay the whole report before our readers. We must content ourselves with a few selections.

Dr. Prince has not much patience for those who from false motives of economy are inclined to remove patients from the institution before cure is complete, or who, even when incurable, are so much happier there than at home. Of this too common disposition he says:—

> "In cases where the disease is permanent, and nothing can be gained by longer residence in a hospital except the greater comfort of the patient and his family, there is a fair weighing of comfort against money, and, from the frequency of the operation in this life, the balance is soon struck. Gold is of the heaviest, and comfort of the lightest of luxuries. One can be resigned without a murmur, the other only with a groan. One flies at the bidding of many a reasonable pretext, the other only creeps by command of dire necessity. The one is a fleeting luxury, by no means indispensable, the other the permanent and solid representative of all possible worldly goods. The choice, then, is not difficult. There is a sacrifice of a natural feeling—a gratification of another natural feeling, and the struggle is ended that time. Too often only for that time. The patient removed from hospital treatment to his home, and consigned to the well-meant but often injudicious care of his friends, often becomes more and more troublesome. He thinks he has a right to demand of his own kin that gratification of all his whims and insane demands he would not expect from strangers. He bears refusal with impatience. He mourns the filial disobedience that will not obey his wild commands. He resents with tears what seems to him the impertinent opposition of a favorite daughter to his constantly-recurring whims. The wife of his youth, warmed in his bosom, turns a viper's tooth upon him, and the poison of supplanted affection, of conjugal infidelity, of love grown cold, rankles or freezes in his heart. These delusions are facts to him, and he is constantly wounded in his tenderest feelings—his soul harrowed by the enormity of the offences committed against him by those who should respect and love. His family is fiendish—his home a hell."

We cannot follow further the vivid picture of the horrible mental condition of these unhappy sufferers, which the Superintendent draws, to give force to his argument for the imperative duty of their friends to place them at once, at the very first appearance of symptoms of mental alienation, within the hospitable walls of an asylum, and to keep them there until the cure is complete. Their premature removal is a constant source of misapprehension and injustice to those who have had them in charge, and the community is too often agitated by stories of cruelty in the treatment of these unfortunates, which are almost always unfounded and originate with this class. On this subject Dr. Prince says:—

> "Not only is permanent and vital injury often done to patients themselves by premature removal from the salutary restraints of a hospital, but there are other consequences not less unpleasant, involving great injustice toward the institution in which they have been placed, at a time when disease had not removed all possibility of feeling. Few patients go away from home, among strangers, to a hospital voluntarily. There is always more or less coercion. When one leaves the hospital before he is cured, he rarely fails to connect all the disagreeable circumstances of his illness, as far as memory, and often as far as his imagination serves him, with those who have *last* exercised control over him. His perceptions are not clear, things appear to him as they are not—he misinterprets what is said and done. Not acknowledging his diseased condition, he feels aggrieved; he has been defrauded, deprived of his rights; abused, injured, neglected, starved, beaten, drowned, smothered, smoked, hung, confined, kicked out, scalded and frozen; and if there is any other indignity to be offered a man, he it is who has drained the cup to the dregs. This impression seldom wears entirely away, although recovery may take place."

And further:—

> "The contrast is very striking between these cases and those in which the cure has been complete before removal. When the delightful consciousness of returning reason—the new birth, we may almost say, of the soul—has taken place within the walls of his temporary home, all connected with it is delightful. He leaves it with a real regret. After leaving it, he has often a feeling of home-sickness—a longing for its quiet, and for the feeling of security he left behind; and he revisits it, drawn by the same fond feeling which attracts us all to the place of our birth—to the place where our consciousness first awoke—where every tree and stone, and every rail in the fence is glorified by a halo of delightful associations. It is cruel to deprive him of this, one of our highest delights. It is unjust to an institution thus to subject it to misconception.
>
> "So much needed not, perhaps, to be said. But the subject is important in both aspects, and these remarks may possibly meet the eye of some who may profit by them."

The important question of the permanent care of the incurably insane, those affected with chronic dementia, is one that Dr. Prince shows the deepest interest in. It is a question which may well engage the interest of the philanthropist and the political economist. During the past year there were supported by the State *nine hundred and ten lunatic foreign paupers,* distributed among the different State hospitals. Of the permanent support of this class we must let Dr. Prince speak for himself.

> "The ultimate disposition of this class of patients must before many years become a question quite interesting, both from a humanitarian and an economical point of view. Their rapid increase, during the last ten or fifteen years, would seem to indicate that the accommodations at present afforded by the Commonwealth, will soon be entirely insufficient to meet the demands of this unfortunate class. The already enormous expense of supporting so large a number of insane foreign paupers would cause our tax payers to receive with great disfavor any proposition to increase the number of institutions or to increase at any considerable expense the accommodations now existing. And yet, before the lapse of many years, something will be required, and perhaps a judicious system of *colonization,* as practised in some European countries, may be found equally beneficial to the patient and the treasury of the Commonwealth. That these patients are not entirely unproductive, as a class, the industrial statistics of some institutions clearly show. The amount of labor performed in some of these, if the fig-

ures are reliable, is quite remarkable, and strongly suggestive of the idea that, by proper selection of cases, proper care and superintendence, in suitable localities, *under a sufficient system of general supervision*, much might be done to develop a latent element of profit by fanning into life the now dormant and fading spark of usefulness in these truly pitiable sons and daughters of misfortune. A few trials, entirely experimental, made during the year now closed, lead to the belief that much good, with little risk, would result from a carefully-conducted series of experiments in this direction under skilful supervision. And I am inclined to the belief that the Commonwealth could be relieved of a considerable proportion of the expense of supporting these insatiable claimants of her bounty, if some proper plan could be adopted of utilizing the now wasted and expensive remnants of productive industry represented by this large class of demented foreign paupers."

But at the same time Dr. Prince is careful to warn against taking a mercenary view of this project. He says :—

"In the hospital let us have labor hygienic, but not necessarily profitable. Let it cure, if it may ; but in the name of humanity, do not oblige it to be profitable. Let it soothe and heal and amuse if it can, but let us look elsewhere for its profits. Few superintendents can spare from other pressing and higher duties the time and attention necessary to give any hope of success in industrial occupations in their hospitals.

"May I not venture to say, without incurring the charge of proposing any utopian scheme, that an experimental institution such as is here hinted at, might legitimately and appropriately find in its kindly bosom a fit resting place for many of those truly unfortunate, and too often unjustly censured, because diseased, sufferers—*the possessed with the demon of intemperance.*

"In my report, last year, I took occasion to refer to the wants of this class of unfortunate men *and women*, and to express the hope that their necessities and those still more dire of their families, might not be neglected in the rush and turmoil of the times. Drinking and fighting are equally the results of organization. It is just as natural for one man to drink to intoxication, especially if he inherits a predisposition to it, as it is for another man to fight. We are all inclined to fight on sufficient provocation, and we all have a favorite beverage—unfortunately not always innocent. Indulgence of both these natural appetites seems to place those who yield to either temptation in the same category before Him who has assigned the penalty to him "who says to his brother 'thou fool.'" We care tenderly and properly for the victims who yield to the one temptation, and turn coldly from those who do not withstand the other. Certainly none demand more tender care than those who offer life or limb on the altar of duty. At the same time none deserve more pity, or require more instant help, than those who offer not only life and limb, but the immortal soul itself, with all its glorious possibilities, a sacrifice to the moloch of intemperance. One sees the dying soldier going, with exultation in his closing eye, to receive his reward, and feels that he who dies for his country dies well. But no one can look upon the horrible wasting away of a drunkard's *soul*, as one by one its powers are drowned out—the eye of conscience finally closing to all perception of light—with any feeling but one of awful commiseration, and of horror at the infinite capability of suffering with which it is indued."

And here we must leave this admirable report, regretting that want of space compels us to leave a large part of it unnoticed.

BRITISH AMERICAN MEDICAL JOURNAL.—It is with sincere regret that we announce the discontinuance of the *British American Medical Journal* with the issue of the number for December last. We have always regarded this Journal as one of the best on our exchange list, and we have been indebted to it in times past for many valuable extracts. It is not to the credit of our professional brethren in British America that they have allowed so good a publication to die of inanition. We shall miss it from our table very much.

Case of a Woman with three Hands.—At the meeting of the Royal Medical and Chirurgical Society, on Dec. 9th, Mr. J. Jardine Murray reported the following, which we copy from the *Lancet*:—

"The patient, aged 38, was a well-developed, healthy, active, and intelligent woman. She was married, and has had one child, in all respects normal. None of her relations had been or is the subject of malformation. The left upper extremity was the only abnormal part. The limb was muscular, the shoulder natural, and the external condyloid ridge of the humerus very prominent. Flexion of the elbow-joint was imperfect. The supernumerary hand was somewhat smaller than that which it so strangely accompanied. The thumbs were rudimentary. In working as a charwoman, the patient leans on the back of the flexed carpus. The double-hand could grasp firmly, though the maximum of power was not equal to that of the woman's right hand. Sensation was equally acute in all three hands."

Dr. Wm. H. Coggswell, of Plainfield, Ct., with Dr. W. M. White of Fair Haven as his assistant, has been appointed by the Governor of that State to visit and look after the health of the Connecticut soldiers now in the field and in hospitals.—The number of deaths in Lawrence, in this State, during the last year, was 448, being 4 less than in 1861; number of births, 612, or 18 less than in 1861.

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, January 31st, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - -	38	33	71
Ave. mortality of corresponding weeks for ten years, 1853—1863,	38.8	34.0	72.8
Average corrected to increased population - - - -	00	00	80.26
Death of persons above 90 - - - - - - -	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
14	3	1	3	0	1	2	1

To Correspondents.—The following papers are on file for publication. Several of them were intended for insertion in the Journal to-day, but want of space prevented:—Prof. W. W. Greene's Cases of Thoracic Effusion relieved by Thoracentesis; Diagnosis of the Malarial Diathesis; Dr. Chandler's Obituary Notice of Dr. Asahel Clapp; Remarks on Nitrous Oxide and Oxygen; Extract, by Dr. Comstock, relating to the Accouchement of Marie Antoinette; and the continuation of papers in the present number by Drs. Chapman and Upham. Intimations have also been given of articles in preparation, which will be thankfully received and to which early attention will be given.

Pamphlets Received.—Eighth Annual Report of the Board of Trustees and Officers of the Southern Ohio Lunatic Asylum, for the year 1862.

Married,—At Falmouth, 30th ult., N. Barrows, M.D., to Miss Susan B. Harris.

Died,—In Westford, Feb. 1st, Dr. Benjamin Osgood, 82.

Deaths in Boston for the week ending Saturday noon, Jan. 31st, 71. Males, 38—Females, 33.—Apoplexy, 2—asthma, 1—congestion of the brain, 1—disease of the brain, 2—bronchitis, 4—consumption, 14—convulsions, 3—croup, 3—cyanosis, 1—diarrhœa, 1—diphtheria, 1—dropsy, 4—dropsy of the brain, 3—dysentery, 1—scarlet fever, 1—typhoid fever, 2—disease of the heart, 3—intemperance, 1—infantile disease, 3—disease of the kidneys, 1—congestion of the lungs, 3—disease of the lungs, 1—inflammation of the lungs, 3—marasmus, 1—pleurisy, 1—puerperal disease, 1—rheumatism, 1—scrofula, 1—sore throat, 2—syphilis, 1—tumor (ovarian), 1—unknown, 2—whooping cough, 1.

Under 5 years of age, 34—between 5 and 20 years, 3—between 20 and 40 years, 20—between 40 and 60 years, 7—above 60 years, 7. Born in the United States, 50—Ireland, 18—other places, 3.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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CASE OF DOUBLE VISION WITH EACH AND BOTH EYES.

[Read before the Boston Society for Medical Improvement, January 27th, 1863, and communicated for the Boston Medical and Surgical Journal.]

By G. A. Bethune, M.D.

Mrs. ——, aged 37, the wife of a physician, and who had formerly taught in one of the highest of our private schools, consulted me first on the 10th of March, 1862. Naturally far-sighted, and without previous trouble in the eyes, eighteen months ago, after unusual exertion in studying, she was seized with double vision with each and both eyes. She suffers no pain, photophobia or other subjective symptom. This diplopia does not extend to very near objects, the nearest point being from four to five feet. The new moon she describes as seeing with four horns. The false image seems always to *the left*, except in the case of horizontal lines, as, for instance, a a telegraph wire, when it appears *below*. The appearances are the same with either eye covered. By bending the head, she *thinks* to the *left*, the two images coincide. She thinks there has been no variation in the double vision since she first observed it, *when the circumstances are the same*. She observes it more when looking towards the sky, and in clear light, than when the light is weaker.

She is rather a delicate-looking person, though her general health is good. Her hands and feet are apt to be cold. About six months ago she was attacked with tinnitus of both ears, which still continues.

On examination, the only abnormal appearance in the eyes is a little tinea ciliaris. She was advised to rest the eyes, to apply a lotion of acetate of lead to them, and a stimulating lotion to the spine. To take sherry wine, and exercise in the open air up to her strength.

Jan. 17th, 1863.—Was again seen to-day. No change in eyes. Other things as above, except that the tinnitus has diminished. The left pupil was dilated with atropine, and the eye examined with Burow's ophthalmoscope. *Nothing abnormal seen.* Two repetitions of this examination, on different days, were made with the same result, and announced to the patient. My colleague, Dr. Derby, was then requested to make the same examination, which he did, and made the same report to the patient as myself.

What is the cause of the double sight in this very rare and remarkable case? It is a very difficult question to answer. Is it some change in the physical formation of the eyes, which has escaped observation? Possibly, and the fact that by bending the head the images are made to coincide, would favor that supposition. On the other hand, if this is the case, the eyes must each depart from the normal to precisely the same degree, and the chances of this would seem to be very small. There is one symptom which suggests that the disease is *central*, behind the globes, and that is the *tinnitus*. This, however, has diminished, while the affection of vision remains the same. She has no trace of hysteria or nervous tendency of any kind. Moreover, it seems difficult to reconcile this supposition with our modern theory of vision.

PRACTICAL OBSERVATIONS ON, AND THE TREATMENT OF DIPHTHERIA, WITH ILLUSTRATIVE CASES.

BY E. N. CHAPMAN, M.D., PROF. OF THERAPEUTICS, MATERIA MEDICA, &C.

[Communicated for the Boston Medical and Surgical Journal.—Continued from page 15.]

CASE I.—Some ten years since I saw a case of scarlet fever of a mild type, which, after the disappearance of the eruption, was attended with an exudation on the mucous surfaces of the fauces and nostrils, presenting the appearance of the diphtheritic membrane. Alum, borax and the nitrate of silver were assiduously applied for several days, without any good result, when they were discontinued, and the case trusted to nutrients and wine-whey. The indications for the change were apparent from the rapidity and softness of the pulse, the profuse perspiration, the blanched countenance and great debility. Recovery eventually took place, though the exudation lasted more than three weeks from its first appearance.

CASE II.—About seven years since, a case of scarlet fever in a child was progressing favorably, near the decline of the eruption, when, suddenly, a croupy cough set in at night. On the next morning, a well-defined and characteristic membrane could be seen in the lower posterior part of the pharynx. An emetic was given, and the nitrate of silver applied, but without any favorable change. Inspiration became more and more difficult and distressing, until the case terminated in death, on the second night, by apnœa.

CASE III.—Sixteen years since I lost a child eighteen months of age, with what appeared to be a membranous inflammation of the bronchial tubes. The cough was muffled, not ringing, the fever high, and the respiration, from the first frequent, became more rapid and distressing until death took place, in twenty-four hours from the onset of the disease. At the *post-mortem* examination, which was made by Dr Atwater, it was found that the air-vesicles were filled, and the bronchial tubes and trachea lined, with a false membrane. From this membrane not affecting the larynx, and from its being thicker in the smallest tubes and thinner in the larger ones, so much so that it became a mere film in the upper part of the trachea, it was evident that the disease began in the mucous tissue of the lungs, if not in the air vesicles themselves.

CASE IV.—In the second year following, another child, nine months of age, was attacked with the same symptoms, lived the same length of time, and died in the same way. Dr. McClellan, who had seen the child several times during its illness, made the autopsy. No membrane was found, or other disease of the larynx, trachea, bronchial tubes, lungs or heart to account for the oppressed respiration or for the fatal issue. My conclusion, from what I have since seen of Diphtheria, is that both children had this disease; in one the exudation was effused, in the other death took place from the state of the blood.

CASE V.—Nearly three years since I was called to a boy five years of age, who had complained of a sore throat for a week, and had had a croupy cough for forty-eight hours. His condition now was most alarming, if not well nigh hopeless: a membrane, readily seen in the throat when the tongue was strongly depressed; a pulse uncertain, running and scarcely to be counted; the surface of the body blue, and covered with a profuse, clammy perspiration; and a difficulty of respiration, which, impossible in the recumbent posture, could only be accomplished when the head and shoulders were elevated, through the aid of the voluntary muscles. Internally, senega and squills, in emetic doses, were given, and then continued in quantities short of nausea, combined with the carbonate of ammonia. The nitrate of silver—ʒ i. to ℥ i. of water—was passed into the larynx, twice the first, and once the two following days; and a blister applied over the sternum.

During the first two days, several small shreds of membrane came up on the swab, and in the matters vomited. The croupy symptoms disappeared promptly; but the recovery of the child was slow, both owing to a bronchitis that followed, and a profuse and continuous discharge from the blister. Its surface was at no time covered with a membrane, but with weak, indolent granulations, that, in spite of burnt alum and the sulphate of copper, showed no disposition to cicatrize. It was more than a month before the blister healed—a fact readily accounted for by the anæmic, feeble state of the patient. This condition was eventually removed by nourishment and tonics.

Following this case, many others were presented to my notice, mostly, however, in the Out-Door Department of the Long Island College Hospital. These, by my colleagues and myself, were treated in a variety of ways. We gave a fair trial to mercurials, in small continuous doses, and in larger ones united with purgatives;

to low diet and full diet; to diaphoretics, such as nitre and the acetate of ammonia; to the chlorate of potassa, internally and as a gargle; to fomentations and poultices external to the throat, both simple and medicated; to astringent collutoria, alum and zinc for example; to caustic applications of iodine and the nitrate of silver, &c. &c. None of these various means appeared to have a controlling power over the disease. Some of the cases, seemingly cured, returned in a few days with the membrane re-formed, and many were attended for a length of time, without any change either for the better or worse. The mortality cannot be stated, since the patients were not followed to their homes; and, if severe symptoms set in, most likely the nearest physician was called. At this period the epidemic was of a less malignant character than for the last twenty months, as was shown by a lack of a disposition to spontaneous hæmorrhages.

Case VI.—About the time above mentioned, through the kindness of Dr. Mason, one of the Council of the College, an opportunity was afforded me of seeing a case in which the chlorate of potash was used in conjunction with nutrients and wine whey. Prof. Flint also saw the case several times, in consultation. There was hæmorrhage, several times, from the nose; a rapid, irritable pulse; a clammy perspiration and great nervous and muscular prostration. The child lived for more than a week, but eventually died from the poison of the disease, without the larynx becoming implicated. Dr. Mason informs me that the two remaining children took the disease—one severely—but recovered by a treatment similar, though somewhat more stimulating.

Case VII.—I was called, Dec. 16th, 1860, to see a little girl 5½ years of age, of a scrofulous constitution, who had been much confined in hot, close rooms. She, for the last five days, had complained of a slight stiffness and soreness of the throat, and was languid and listless—symptoms that were supposed by the parents to arise from a cold. Both tonsils were swollen and dotted with several little circumscribed white points, apparently the mouths of the mucous follicles. The child was feverish, petulant and nervous; the pulse was soft and rapid, and the passages were dark-colored and fœtid. I directed ℞. Hydrarg. submur., gr. i.; cretæ ppt., gr. viij. M. Fiat cht. No. viij. S. One every second hour until used, and then followed by a dose of castor oil.

Dec. 17th.—The fauces were more inflamed, of a deeper color, and partially covered by the coalescing white points above mentioned. The discharges from the bowels are of the same character as at first, and now hæmorrhage from the nose has shown itself. I repeated the powders and oil, applied lunar caustic—ʒ i. to ℥ i. of water—to the throat internally, and ordered an anodyne liniment of camphor, laudanum and arnica externally.

18th.—The caustic was applied morning and evening, and a diaphoretic of nitre, ipecac. and the acetate of ammonia given. From the contact of the swab a dark, grumous blood flowed from the tonsils. During the night the child had bleeding from the nose several times, was feverish and somewhat delirious.

19th.—As there was no improvement in the appearance of the passages, the powders were renewed and given alternately with the mixture. The caustic and anodyne liniment were continued. There is now less heat of skin and fever; a tendency, at times, to perspiration; increasing weakness; greater tumefaction of the tonsils, which bleed, however lightly touched. Not the slightest impression has been produced, by the caustic, on the exudation.

20th.—The symptoms are all aggravated, and restlessness and jactitation are commencing. I omitted the mercurial, continued the mixture, adding camphor, re-applied the caustic and directed beef-tea.

21st.—The child's throat is filled with a bloody membranous matter of a very fœtid odor, and a suspicious, black-looking spot is observable on the uvula. The nose has bled several times in the last twenty-four hours. The child's vital power appears weighed down by a poison in her veins, and is rapidly yielding, as is becoming more evident day by day by the increased debility and prostration. Omitting other medicines, I now attempted to support the constitutional forces in the struggle, with nourishment, wine whey and quinine.

22d.—The child is in a state of semi-consciousness, sleepless, and tossing about constantly. The entire uvula has become of a black color. The same treatment continued.

23d.—The uvula was sphacelated, and the soft palate and tonsils looked darker colored, almost black. The child, in a state of constant jactitation, unconscious of those around her, sank rapidly, and died at 11, P.M., without the larynx becoming implicated.

A week after the death of this girl, her brother, two years of age, the only remaining child, took the disease, which was attended with similar and equally malignant symptoms—spontaneous hæmorrhages, exhaustion and gangrene—and was followed by death in about the same time, without the membrane extending to the larynx. These particulars I learn from the physician who attended the case. The treatment was not stimulating or sustaining.

Case VIII.—A few days after the death of this girl, I was called to see another about the same age, who was scrofulous, fleshy, a hearty eater and delicate from confinement within doors. The child had great irritability, a high fever, a hot, dry skin, and a rapid, full pulse. Great difficulty was experienced in swallowing, from the inflamed and swollen tonsils, on one of which a membranous patch was seen. A teaspoonful of brandy and a quarter of a grain of quinine were directed to be given every hour, and the nitrate of silver was applied every morning. This treatment was continued, uninterruptedly, for four days; when, on the disappearance of the membrane, the quinine and caustic were omitted and the brandy given singly. This was to prevent a relapse, in which it was successful, and to correct the altered state of the blood. On the morning of the second day of the disease the fever was lessened, the skin disposed to perspiration, and the swallowing was easier, though the membrane had extended and the tonsils were darker colored and bled when roughly touched.

On the third day there was a great improvement in the symptoms—diminished vascular excitement, the membrane stationary, looking thicker, more raised and of a yellowish color.

On the fifth day the engorgement of the tonsils had subsided, and the membrane had disappeared.

Case IX.—Master F., aged 6 years, living in State St., one of the healthiest locations in the city, and allowed to exercise freely in the open air, took the diphtheria, with symptoms nearly identical, as to fever, pulse, state of the tonsils and extent of the exudation, with those observed in the last case. The boy was scrofulous, but not sickly, and had had the scarlet fever. This case being trusted to brandy and quinine, the same diminution of the fever, subsidence of the swollen tonsils, and limitation to the extension of the membrane, were observed as in the last case. Recovery took place in five days. This boy, though remaining perfectly well during the interval, was attacked again in the latter part of September following, and died from the poisoned state of his blood.

Case X.—The lady of a physician was taken with the Diphtheria a year ago last March. She is constitutionally feeble and scrofulous, of a consumptive tendency, and never enjoying even tolerable health. A patch of exudation appeared on one tonsil, with slight redness but considerable irritation of the throat. There was no fever, and but little general disturbance beyond what might be accounted for by a high nervous excitement at the dread of this terrible complaint. For the first forty-eight hours the treatment consisted mainly of the nitrate of silver and tincture of iodine, which were applied energetically to the seat of the membrane. This would fall, but in a few hours be replaced. After the last cauterization the membrane, in three or four hours, spread to the posterior part of the pharynx. This result followed so rapidly as to render the sequence between cause and effect apparent to the doctor, and myself who now for the first time saw the case. We now determined on discontinuing all local medication except demulcents, and relying on brandy and quinine. Some twenty grains of quinine were given during the next twenty-four hours, which very speedily caused ringing in the ears. The brandy was taken in small quantity, only one teaspoonful every third hour. The cure was most rapid and prompt. The membrane disappeared in three days, and no relapse has since occurred. Mrs. —— for some time subsequently had great weakness of the lower extremities, almost a total inability to rise when sitting; evidently a partial paralytic condition. This in four or five weeks entirely disappeared. This lady had had the scarlet fever.

Case XI.—Master C., aged 6 years, scrofulous, small in stature, and of defective vital power, was attacked with the most intense congestion and inflammation of the tonsils, and had a bounding, rapid pulse of 120 pulsations per minute, and a high fever. On the second day the symptoms were aggravated; especially the condition of the throat, which was now hard and swollen in the parotid region. The mucous follicles of the tonsils were distended with a white matter, giving them the appearance they present in follicular inflammation, which disease it was supposed to be and treated accordingly with diaphoretics, &c. On the third morning these white points had united, covering the tonsils uniformly. The entire fauces were more inflamed, had a darker hue, and were disposed to bleed on examination. There had been nose-bleed the previous night. The fever was high, the restlessness and irritability very great, and the pulse 150 per minute.

The boy was now put upon brandy and quinine; the former, at first, in tea-spoonful doses every second hour, then every hour, but eventually every half hour; the latter in quantities of six grains in the twenty-four hours, the first three days, when, on the supervention of tinnitus aurium, the dose was lessened. A portion of quinine was taken for five days, but after this period only stimulants and nourishment were given. At the outset, beef-tea was ordered; but, from the difficulty of swallowing, little was taken during the height of the disease. The parents were enjoined to be particular in administering the amount of stimulant directed, whatever else might be neglected. During a part of the treatment the patient took a weak solution of chlorate of potash, given more for the purpose of bathing the throat as it was swallowed, than from any reliance on its systemic effects.

The second day after commencing the use of brandy and quinine there was the following condition: the fauces uniformly covered with membrane, the fever and heat of skin gone, the surface bathed with perspiration, and the pulse equally rapid as at first.

On the third day there was a profuse perspiration, a more rapid pulse, an oozing of blood from the tonsils, epistaxis and greater evidences of prostration, as shown by restlessness and jactitation. Though the quantity of brandy now given was large, the effects of a stimulant were not observable. In the evening I gladly availed myself of the counsel of my colleague, Prof. Flint, both to gain the benefit of his large experience and to calm the excitement of the terror-stricken parents. The course hitherto pursued was approved of and continued. Subsequently we were both in attendance until the patient convalesced.

On the fourth day the membrane was detached at several points, was raised, thicker, yellowish, and appeared as though it would soon fall off. The inflammation had subsided so much that the act of swallowing was more easily effected; yet the pulse was still soft and rapid, the weakness extreme and the sweating profuse and exhaustive.

From this date the improvement was rapid, the membrane hanging in shreds and finally dropping off, and the engorgement of the throat subsiding, so that the parts resumed their natural appearance.

On the ninth day the membrane disappeared and has not since returned. On account of the debility of the patient, the brandy was continued for some time after my attendance was discontinued. Under its use the child recovered from the debility so characteristic of this disease, and regained his wonted health.

[To be continued.]

DIAGNOSIS OF THE MALARIAL DIATHESIS.—NEW TEST SYMPTOM.

[The following interesting paper on a new pathognomonic symptom of the malarial diathesis has been placed in our hands by Surgeon-General Dale, to whom it was communicated by Surgeon E. C. Bidwell, of the 31st Massachusetts Volunteers.—Eds.]

The diagnosis of ordinary intermittent fever is by no means difficult. Its strongly contrasted phenomena—chill, fever, sweating and intermission—their regular and orderly succession and stated occurrence, constitute together such a peculiar *tout ensemble* as not to be easily mistaken. But it is not every case of disease arising from malaria that wears thus openly the marks of its origin. Often some one or more of the stages of this *curriculum* are materially modified or entirely omitted, or their usual order disturbed; and there are many morbid manifestations of the same diathesis whose features bear so little resemblance to the original portrait as scarcely to be recognized by familiar acquaintances. There are yet more difficult cases in which the same diathesis complicates and perpetuates other pre-existent or accidental diseases, without betraying itself by any of the signs by which it is usually recognized. Even periodicity, at once the most constant and characteristic of its external features, sometimes fails to furnish its accustomed clue. That such cases should not unfrequently escape successful treatment through lack of recognition, is of course. As they arise from the specific cause of intermittent, they require the specific treatment of intermittent. Quinine cures them, while symptomatic remedies fail. How to detect the malarious element in these cases is therefore a question of great interest and practical importance to our army and its medical officers. The subtle malaria of the rebel soil destroys and disables more Northern soldiers than all the wounds received from rebel arms.

It is to aid in the detection of the influence and workings of this wide-spread and insidious poison, that a pathognomonic symptom, not well known to the profession, is here described. It is a very peculiar and abnormal appearance of the tongue, in which its under surface appears to have trespassed upon the upper, the *papillæ* of the latter being supplanted by the transverse *rugæ* of the former. The sides are thickened and rounded, the normal well-defined edge being obliterated, and the line of demarcation moved nearer to the mesial line. This appearance of the sides may be associated with any and every possible appearance of the remaining papillary surface, clean or coated, thick or thin, light or dark, just as the malarious disease may be attended by any and every variety of morbid condition of the system. Through all this variety it is perfectly distinct, and, when once learned by actual inspection, is unmistakable.

Wherever I find this malarious tongue, whatever other symptoms and conditions may be present, I give quinine freely and confidently. So much confidence do I place in its indications that, when it is present in complicated or obscure cases, I make all other treatment wait upon quinine as the first and indispensable remedy. On the other hand, when in charge of a regiment, if soldiers came to me complaining of "chills," whose tongues did not present this appearance—telling the truth to the eye while they lied to the ear—they were unhesitatingly returned to duty. I am confident that in judging by this criterion of more than twelve hundred cases during the last season, I have never wronged more than two men, and those not grievously. In those two cases, I am obliged to confess, it was but faintly developed Both were mild cases of simple intermittent. The remark that the appearance now described is an unfailing indication for the quinine treatment, is not to be understood as implying that such treatment is to be continued until the symptom disappears. That is not necessary nor advisable. Relief and amendment do not wait for its disappearance—nay, even come some days in advance of it.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

JAN. 12th.—*Gun-shot Wounds of the Arm, followed by Anæsthesia of part of the Hand.*—Dr. W. E. TOWNSEND reported the two following cases, which came under his care in the Mason General Hospital.

I.—Private Wm. T. Wells, Co. C, 16th Reg't Mass. Vols., was wounded at Fair Oaks, on the 18th of June, 1862, by a conical ball entering the right forearm on its posterior aspect, three inches below the olecranon, and making its exit an inch anterior to the internal condyle of the humerus. The hæmorrhage was not very severe, and continued only twenty or thirty minutes. No spicula of bone came away, although it would seem, from the position of the entrance and exit, that the ball was slightly deflected from its course. After leaving the arm, the ball entered the right side, fracturing the tenth rib, a small spiculum of which was afterwards removed from the wound.

The sensation in the fore-arm, on the radial side, is *nearly* natural, though diminished on the ulnar side. It is natural in the whole of the thumb, index and second fingers, as well as the radial half of the palm. There is partial sensation in the ring finger and the portion of the palm opposite, but it is wholly wanting in the little finger and the portion of the palm corresponding. On the dorsum of the hand the sensation is natural, except over the heads of the carpal bones of the index and second fingers. In the ring finger it is partial, but in the little finger it is wholly wanting.

The size of the fore-arm is diminished, and the hand, the ring and little fingers, together with the ulnar side of the palm, are much atrophied. The strength of the fore-arm is diminished, and that of the hand, the ring and little fingers is entirely gone. The color of the arm is natural, but the hand, the ring and little fingers are livid, accompanied with coldness. The wound is entirely healed.

II.—Private John A. Lyons, Co. A, 28th Reg't Mass. Vols., was wounded at Antietam, Sept. 17th, 1862, by a conical ball entering the inside of the right arm, two and one half inches above the internal condyle of the humerus, and making its exit four and one half inches above the external condyle, and about an inch exterior to the anterior median line. The humerus was wounded, as two spicula of bone, about two inches in length, came away soon after. The wound bled profusely for some thirty or forty minutes, and somewhat for about an hour and a half, after which there was no hæmorrhage, although the wound was not dressed for four or five hours.

The sensation is perfect in the whole of the arm, but ceases entirely in the thumb and first four fingers. It is natural in the little finger and the portion of the palm opposite, and partial in the palm opposite the ring finger, but there is no sensation in the ulnar side of the ring finger. The sensation on the dorsal side of the hand is natural—partial over the first bones of the phalanges, and wholly absent over the last bone of the thumb and the last two bones of the fingers.

The motion is quite good in the carpal portion of the thumb, but there is none in the other joints. The motion of the little finger is natural, the ring and second have less, while the index has none, except in the carpal portion, and that slight. There is some stiffness in the elbow-joint and also in the wrist. There is no loss of size in any part. The color of the arm is natural, as also of the little finger, but the other fingers, and the thumb, together with the radial side of the palm, are livid.

There is pain along the whole extent of the ulna, especially if the arm is heated either by exercise or artificial heat. The wound is entirely healed.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, FEBRUARY 12, 1863.

CALCAREOUS METASTASIS.—At a recent meeting of the Society for Medical Improvement, an interesting case of caries of the head of the femur was reported, in which, after death, the kidneys, although of a perfectly normal appearance, were found by microscopic examination to be diseased throughout, the tubules being everywhere enlarged and crowded with granular matter. In the discussion upon the case which followed, Dr. Ellis, who made the *post-mortem* examination, remarked upon the connection which had been noticed by Prof. Virchow between similar affections of the bones and a diseased condition of the kidneys in cases of so-called calcareous metastasis. As disease of the kidneys was excluded during the examination on account of their healthy appearance, it appears that attention was not particularly directed to a search for any calcareous deposits in this case, and probably none such were present; but it may be interesting to our readers to know that such metastases may take place without the presence of any disease of these organs, as the following case recently reported by Dr. Schott, **the assistant of Prof. Rokitansky, shows.***

"Since attention has been more particularly directed to the processes of metastasis, especially those produced by emboli, we see our knowledge of this subject almost daily increased by new examples. Cases, however, in which metastases take place for the reason that matters, which ought to be separated from the body by secretion, are deposited in the tissues of other organs again through imperfect elimination, claim our interest in a high degree on account of their infrequency. Well-known examples of the latter kind are the occurrence of gouty concretions and the abundant separation of carbonate of ammonia in the stomach by retention of the urea; to the more infrequent and only very recently perfectly described forms we must add the deposition of lime salts, Virchow's calcareous metastasis, in the stomach, intestinal canal, lungs, &c. It may appear justifiable, therefore, to describe here, in detail, as an addition to our knowledge of calcareous metastases, a case which I have recently had opportunity to observe.

"The examination of a child, æt. 18 months, who died four days after being driven over, revealed, together with extravasation of blood into the abdominal cavity, a detachment of the intervertebral cartilage between the first and second lumbar vertebræ, so that the vertebral column by this means obtained an abnormal mobility. The under surface of the first lumbar vertebra thus exposed was rough, discolored, and contained superficially in the enlarged medullary cavities a purulent fluid; the dura spinalis appeared thickened, injected and ecchymosed, the spinal marrow unchanged. The lumbar muscles, as well as the cellular tissue about the kidneys, engorged with blood; the walls of the small intestine remarkably thin, its follicles swollen, the mucous membrane, as well as that of the ascending colon, rough to the touch in places like sand. After removal of the mucus the mucous membrane appeared here and there covered with white, round scales of the size of poppy seeds, which were enclosed within it, and in the transparent small intestine followed principally the course of the ramifications of the vessels.

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* Wochenblatt der Zeitschrift der k. k. Gesellschaft der Aerzte zu Wien. Oct. 15, 1862.

"The microscopical examination of these bodies revealed irregular masses, here and there branched, sometimes fissured, sometimes supplied with round or oval openings, but more generally homogeneous, which, rendered more transparent by acetic acid, were dissolved, with a lively evolution of gas, by the addition of hydrochloric or sulphuric acid.

"They appeared, therefore, from their chemical behavior, to be deposits of calcareous matter, occurring only in the upper layer of the mucous membrane and upon the vessels in the form of molecules, while the glands remained free.

"The presence of lime salts being determined, there remained to be answered the question as to the cause of their deposition. If we consult the older authors in this relation, we find, indeed, cases of ossification of the walls of the intestine cited, but no regard paid to the ætiological circumstances of such processes. For instance, Sömmering mentions a case, where in a child the inner surface of the intestine was ossified. Meckel refers to two observations made by Baillie, in one of which bony substance was deposited upon the inner intestinal wall, in the other there was a growing together of two neighboring portions.

"It does not appear that these cases are to be considered as calcareous metastases in the sense of Virchow, but rather that they were formations of plates of bone in the cicatrix of a mucous membrane, as described by Rokitansky (Path. Anat., II. Vol., p. 270, 1842).

"The literature of the present day contains comprehensive observations upon these metastases and the nature of their origin. In Virchow's Archiv., Vol. VII., p. 160, Schlöpfer communicates such a case, where calcareous masses were found deposited in the gastric mucous membrane of a young man suffering from necrosis femoris. Virchow (Archiv., Vol. VIII., p. 103, and Vol. IX., p. 618) mentions six cases of so-called calcareous metastasis in the lungs, the stomach and the intestinal canal, in which caries or cancer of the bones was present. According to the communication of Grohe (Virch. Archiv., Vol. XIII., p. 277) such deposits were found in the large intestine of a person who died of tuberculosis and meningitis, and he ascribes the deposition to atrophy of the cranium produced by pachymengitis. Virchow thereupon (l. c.) calls attention to the fact, that in all the cases observed by him considerable changes had taken place in the kidneys; 'that this disturbance must be looked upon as an essential element in the calcareous deposit, inasmuch as in cases of obstructed excretion of the lime salts through the kidneys depositions of these must always take place.'

"In connection with the communication of Lorinser (Med. Wochenschrift, 1862, No. 40) upon inflammation of the bones, Kletzinsky demonstrated, that in the beginning of such inflammation there is, together with a diminution of the chlorides, a great increase of the phosphates in the urine, which remains constant in the dry osseous inflammation to the end of the process, whereas, when suppuration is present and a new formation of bone takes place, there is a decrease of the phosphates.

"We see, then, that in most of the cases of calcareous metastasis there is a disease of the bones accompanying, and that among all the cases mentioned by Virchow there is only one in which no source for the derivation of the lime salts was detected. If we compare our case with those mentioned above, it appears that there is indeed an affection of the bones, but that it is only in its beginning, and thus differs from the cases of other observers, in which the osseous disease had mostly lasted for a longer time, and was accompanied by occasional marked disturbances in the functions of the kidneys. In the present case, however, the kidneys showed no change whatever: there is wanting, accordingly, an essential cause for the calcareous deposit, namely, the affection of the kidneys, a circumstance which would at all events afford us an easy explanation, inasmuch as it will be readily understood that even in case of a short duration of the affection, in consequence of a disturbance of the functions of the kidneys, the lime salts might be deposited in the parenchyma of other organs. If we consider the observation of Kletzinsky, that an increased excretion of lime salts is demonstrable in the beginning of osseous inflammation, it follows, in cases where there is a want of disturbance in the kidneys, that the separation through the kidneys has not sufficed to remove the lime salts present in the blood, so that they become deposited in the internal organs.

"So far as the small number of cases of calcareous metastasis thus far known allow of any conclusion, such a deposition takes place most frequently in the lungs, less often in the stomach or intestinal canal. The case which we have communicated does not fail in interest therefore in this particular, which on the other hand is rather increased, inasmuch as the inflammation of the bones had not attained any marked development, while the metastasis had already reached to so considerable a degree, since such deposits often entirely fail in inflammations of the bones of very long duration, and because the affection of the bone in all other known cases of calcareous metastasis was of considerable extent and mostly of long duration."

Unfortunately for our complete satisfaction, it is not stated in the report whether a microscopic examination of the kidneys was made, although it is fair to conclude that such was the case, considering the thorough way in which *post-mortem* examinations are conducted in Prof. Rokitansky's department, and the attention which the very nature of the case would have directed to these organs. Neither should we expect the development of any diseased condition to a sufficiently marked degree to be detected during the short period which elapsed between the accident and the time of death. Analogy, moreover, teaches us that a structural change of the kidneys is by no means necessary to explain the non-elimination at times of certain salts from the system, which are generally found in great abundance in the urine. To common salt, for instance, which may be considered the most urophanous of any saline substance taken into the economy, these organs show themselves, under certain conditions of the general system, utterly and inexplicably impervious, even when the blood which fills their capillaries must be saturated with it. In the exudative stage of pneumonia, for example, a large quantity of this substance may be given, and yet not a trace of it be recognized in the patient's urine. How, then, in such cases, does it escape from the blood, which can never retain more than a definite amount? We find it oozing from the capillaries of the *lungs* in company with other morbid matter, which goes to make up the exudative material of the disease, and transuding through the small vessels ramifying upon the inner surface of the *intestine*, seeking thus its nearest paths of escape from the economy. These, it will be observed, are the very same channels by which the calcareous salts, when denied exit through their usual drain—the kidneys—seek by the compensating laws of nature to be discharged. This may be the case, not only when these organs are structurally or functionally a bar to their egress, but also when overburdened by too great a quantity of the phosphates taken as food, or when the blood becomes surcharged by absorbing effete calcareous matter through capillaries ramifying in the neighborhood of carious bone. Being more insoluble, or perhaps more readily disposed to enter into stable combinations with the organic matter of the tissues upon their erratic way, this bone-earth does not so easily as the chlorides pass with the fluids into the outer world, but slowly exuding through the outer walls of the capillaries is deposited in the form of molecules upon them within the mucous membrane of the intestines and pulmonary tissue, and forms the deposits alluded to by Virchow. Let such nuclei from any cause be once deposited, and their rapid growth to concretions of a larger size is readily explained by the same law which governs the formation and increase in size of urinary and other calculi, viz., that by which the crystal grows in its mother liquor.

We see, then, that the kidneys, under certain conditions, utterly refuse to perform some of their functions, although to the pathological anatomist they would appear perfectly healthy at such times. Without attempting, however, to offer any explanation of so mysterious a phenomenon, we cite it as evidence that such metastases may be possible even without the concurrence of any structural disease of the kidneys.

STATISTICS OF 100 GUN-SHOT WOUNDS. *Messrs. Editors,*—Be kind enough to find herewith statistics of one hundred gun-shot wounds, taken at random from the records of one of the Washington hospitals, between June and October last. It is a fair average of the surgical cases treated at that hospital for those months, and may indeed be taken (so far as I remember the cases by seeing them cursorily, but frequently) as a fair average of all the surgical hospitals in Washington for the same period.

	No.	Simple flesh wounds.	Injuring bone.	Injuring large vessels or nerves.	Perforating cavity.	Amputation or other operation.	RESULT.		
							recovery.	Invalidism.	Death
Head	13	6	6	0	2	1	9	2	2
Neck	6	4	0	2	0	1	4	0	2
Thorax	8	3	2	0	5	1	4	1	3
Abdomen	9	2	2	0	5	0	5	1	3
Arm	19	10	8	1	0	6	12	5	2
Hand	11	4	7	0	0	1	8	3	0
Leg	24	19	5	0	0	4	18	2	4
Foot	10	5	5	0	0	1	9	1	0
Totals	100	53	35.	3	12	15	69	15	16

With one hundred as the aggregate, of course the number in each class represents the percentage. These numbers include mostly the wounded from Fair Oaks and the "seven days battles." If I remember rightly, the proportion of those from Fair Oaks wounded in the lower extremities was larger and in the upper extremities smaller than the above averages; but of the wounded from the seven days battles the proportion was reversed.

Recovery, in the above list, implies such restoration as would allow future service: while invalidism requires discharge. Of those invalided, the causes assigned were:—loss of both eyes, 1; perforation of skull and frequent dizziness, 1; general debility following perforated lung, 1; loss of arm, 2; paralysis of arm, 3; loss of portion of hand, 3; paralysis of leg, 2; loss of leg, 1; loss of portion of foot, 1. Total, 15.

Of the deaths—from injury of *head:* perforating wound and laceration of brain, 1; depressed fracture, 1. *Neck:* secondary hæmorrhage from carotid, 1; from subclavian, 1. *Chest:* injury to lung and asthenia, 2; shock, 1. *Abdomen:* perforation of intestine, 1; peritonitis, 1; tetanus, 1. *Arm:* pyæmia, 1; asthenia, 1. *Leg:* pyæmia, 2; asthenia, 2.

B.

EXSECTION OF THE BONES OF THE FOOT. *Messrs. Editors,*—Will you permit me to relate the following favorable case of the exsection of a portion of the bones of the foot, as it may be of some interest to yourselves or readers.

The exsection of portions of the shaft of bones, especially where articulations are involved, has been fatal in very many instances in civil practice. In military practice the fatality is much greater, e. g.; after the battles in Maryland, one surgeon had twenty exsections; eighteen of these proved fatal, two required secondary operations. Shortly after the battle of Antietam, a friend said to me, "I have performed eight exsections under what I considered favorable circumstances—none of my patients recovered. I shall not do the operation again while I am in the service."

At the battle of Fredericksburg, Serg't D., of the 12th Reg't Mass. Vols., received a gun-shot wound in the left foot; a rifle-ball entered the head of the fifth metatarsal bone, shattering it entirely. As it passed along, it took away one third of the cuboid bone, and made its exit inferiorly and posteriorly to the os calcis, without injuring the latter. I saw the case on the second day after the receipt of the injury, and as the patient was robust and pretty comfortably situated, I resolved to remove the injured portions only of the foot, rather than do Chopart's operation, as had been advised by some of my brethren.

In doing the operation, two slightly curved incisions were made, commencing at the base and inner side of the fifth toe, and terminating at a point one and one half inches from the external malleolus, anterior and inferior to it. The detached portions of bone, together with about one half the cuboid, were then removed. The operation having been carefully conducted, only one vessel required a ligature. The lateral wound was then closed with sutures, and water dressings applied. The posterior wound was left open, thus affording a free escape for the pus.

About one half of the wound made by the knife united by first intention; the remainder, after a little sloughing in the track of the ball, granulated finely, and now the patient is almost ready to be discharged from the Hospital. Yours, respectfully,

Headquarters Med. Dep't, 12th Reg't M. V., } John H. McGregor,
King George Co. Va., Feb. 2d, 1863. } *Ass't Surgeon.*

Obituary Notice of Dr. Asahel Clapp, of Indiana.—Died, at New Albany, Ind., Dec. 17th, Dr. Asahel Clapp, in the 71st year of his age. Dr. C. was a native of Massachusetts, but his father's family moved, while he was yet a child, to Montgomery, Vt., whence he emigrated to New Albany in the year 1817, soon after the first settlement of that place. For many years he has been one of the leading scientific men in his adopted city and State; and in everything relating to his profession is represented to have been an enthusiast, reading every new work on medicine and surgery, and devoting much time to the study of botany and geology. In seeking practical information on these latter branches he had travelled into other States, and his collection of geological and botanical specimens is said to be the largest in Indiana. Dr. J. L. Chandler, of St. Albans, Vt., who was a fellow-pupil of Dr. Clapp, under the tuition of the father of the former, Dr. Benjamin Chandler, has kindly furnished us with the following interesting particulars respecting the early habits and traits of character of his associate:—

"When," he says, "Asahel Clapp presented himself to my father, he must have been not far from 20 years of age. He was in the rough garb of a backwoodsman, and announced his wish to commence the study of medicine forthwith. It was the custom of country physicians in those early days to receive pupils, boarding, and sometimes clothing them, trusting to their future professional success for remuneration. *He* signified his wish to discharge his pecuniary obligations as they accrued, by labor on the farm, or in any employment my father might furnish. He had travelled some thirty miles on foot, from a new settlement among the mountains, where he had resided from early childhood and where his ardor in the pursuit of knowledge must have been kindled. Yet his training had all been effected in the rough and brief terms of the district school of that pioneer period and mountainous region, usually taught by backwoodsmen themselves. His bearing was indicative of intelligence and good sense—of solidity rather than brilliancy. My father was quick to discover and appreciate talent, and watched its development with the gusto of an epicure. He acceded to young Clapp's terms at once. It was during my own pupilage, and though the only advantage I could claim over him was a superficial smattering of Latin, I affected profound amazement at his temerity in presuming to enter upon the study of medicine with so little preparation, especially with the draw-backs on his time by the undignified employment of 'his own hands' in catering for his daily support. My father replied to this sage announcement of my sentiments towards my fellow-pupil, that I should soon be relieved from the burden of such regrets, by finding myself amply employed in following at a respectful distance my fellow-student's lead in the acquisition of knowledge. My impartial and sagacious father's prediction was ruefully verified.

"With no special claims to genius, he had intellectual strength, and an iron will to do what he purposed; the true secret, no doubt, of success in every department of human pursuit. His work was diligently to study and understand the elementary books in medicine, prescribed by his preceptor; his pastime, the entire fulfilment of his contract with my father, by labor on the farm; still leaving him many fragments of time, which were successfully employed in gleaning items of knowledge from any source which might facilitate the study of his profession. We lodged in a room adjoining my father's study, and while my own slumbers were protracted through the early morning hours, he was up betimes, ransacking the book-shelves and making himself familiar with every writer who might, directly or indirectly, solve the questions perpetually rising in his active mind. May I be indulged in relating a laughable incident, yet really indicative of his indomitable purpose to put every opinion and every theory in science to the proof? He had taken up a small work on electricity—and though the subject was entirely new to him, he had, in a very short time, made himself familiar with all the book contained. Some question was started between us in regard to the different degrees of susceptibility which the sleeping and waking condition of the human system might manifest to the influence of electricity. At the time I little suspected his purpose to improve my own bad habit of sleeping in the early hours, for the benefit of science; but the very next morning I waked to find myself the victim of a tremendous dose of lightning, adroitly administered by my fellow-student while I slept. He had skilfully arranged my father's electrical apparatus by the bedside, and given me a dose which satisfied *me* at least that somnolence was no security against forked lightning."

Dr. Chandler adds, with regard to his knowledge of Dr. Clapp in his later years—"During a short visit to Vermont some two years since, when I had the pleasure of renewing our acquaintance, I found him still the same enthusiastic and diligent student. He was at that time so absorbed in microscopic inquiries, that he hardly allowed himself time for the hospitalities and enjoyments which relatives and old friends were anxious to offer him. Indeed, his travelling outfit seemed to consist mainly of lenses and other apparatus appropriate to the unremitting labor which, at home or abroad, he made the great business of his life. He was eminently distinguished in Indiana, and in New Albany, the city of his early adoption, was no less honored for his professional skill than for his public spirit and his hearty coöperation in every humane enterprise. He was chairman, I think, on an important committee in our National Medical Association, at least wrote the report of that committee, which was published in the Transactions of the Association, and has given a volume to the profession which will be read and valued, long after his old chum is forgotten."

REMARKS ON NITROUS OXIDE AND OXYGEN. *Messrs. Editors*,—Being much pleased with the attention lately given to the use of gases as remedial agents, I wish to offer, through your JOURNAL, the results of some personal observations on the subject.

While working amongst nitrous oxide vapors, some years ago, I noticed that the color exhibited by a scratch on the arm soon changed to a dark purple, almost inky hue, while upon the same person, a few hours before or after, no such result was obtainable.

Was not the difference due to some lower oxide of nitrogen than those which irritate the fauces when inhaled; and if so, was not its action poisonous? Will not such chemical reaction with the blood or some of its elements account for the fatal results of some of the cases reported?

That nitrogen, combined with oxygen, will enter into such reactions readily where free nitrogen will not, and that nitrogen plays an important part in the formation of organic poisons, are points too well understood to need comment here.

Again—these vapors, when freely imbibed *on a full stomach*, acted like a small quantity of vapor from the decomposition of cyanides, producing with its contents a mass of mucus-like matter, smelling strongly of some modified form of the respective gases. The oxides of nitrogen thus taken induced emesis in the course of a few hours, thus preventing the action upon the food from being so complete as in the case of cyanogen, which was in one instance retained forty-eight hours.

On an empty stomach, unpleasant effects, reminding me of the pain sometimes felt under like circumstances during the cholera epidemic, deterred me from entering into close investigations. Notwithstanding this, cases may occur in which the introduction of nitrogen into the system will be desirable, and in such cases it will doubtless be more readily assimilated if given in connection with oxygen, as in the nitrous oxide.

It may be added here, that as a hue tending to black indicates excess of carbon in the blood, so a more purple hue may indicate excess of nitrogen, both calling for oxygen as a restorative.

One of the ablest physicians of Mississippi informed me that the large quantities of supercarbonate of iron he directed were intended *solely as a means of conveying oxygen into the system*, and he often experienced difficulty in giving as much as he desired, on account of the purgative action superinduced mechanically by the deoxidized iron, believing that a portion of the metal was entirely deoxidized in some cases. Another Southern physician once made some similar observations in regard to the muriated tincture of iron, although, if I remember rightly, he wished mild purgative action to follow its administration.

Why is it that of those who have opportunities for doing so, no one has tried oxygen in simple mixtures of various proportions with nitrogen or atmospheric air? Is it because of the difficulties in preparing and conveying it; or only for want of thought? It appears to me that the well-known healthful, vitalizing properties of oxygen should have attracted the attention of those who have been experimenting with ethers of various kinds, quite as much as any remedial agent of a less *natural* character. All know its power as well as its innocuous character, and injury can result from its use only when too freely administered, or when a deficiency of carbon in the system, as in consumption, may occasion its combination with other elements in the tissues, thus leading to the destruction of the tissues themselves.

Allow me to call attention, in this connection, to the remarks upon phthisis pulmonalis, in your issue of Jan. 22d, by Dr. Amos Sawyer, of Illinois; all the points presented by him being supported by my own observations, both near the Atlantic coast and in the Southwestern States. And, further, I would venture the opinion that a warm carbonaceous diet, combined with constant and vigorous out door exercise, will cure any "consumptive" able to bear such exercise. But such a diet, unless accompanied by at least as much exercise as may be necessary to sustain a hearty appetite, will be very likely to be followed by some ill effects: and in some, especially those using pork as an article of food, much more severe exercise in the open air will be requisite.

Possibly, actual experiment may demonstrate that the artificial exhibition of oxygen in the sick room, in connection with such a diet, may be the means of saving consumptive patients: but for obvious reasons, before alluded to, great care will be requisite in opening such a course. Yours, very respectfully,

AN EX-SOUTHERN APOTHECARY.

GARIBALDI'S WOUND—M. NELATON'S CLINICAL REMARKS.—On the 23d ult., M. Nélaton received from the Prefect of Pisa the following telegram:—"This morning, at ten, Professor Zanetti removed the ball from the General's foot. All honor to your diagnosis." Respecting this favorable result, M. Nélaton made the following remarks to his class at the Hôpital des Cliniques:—

"When we consider the variety of opinions which have been offered respecting the presence of a foreign body in the wound, it is evident that the favorable result lately obtained would have been long delayed had we not means of accurate diagnosis. Let me remind you that the wound is on a level with the anterior edge of the inner malleolus, which latter has been fractured by the ball; the wound runs in a transverse direction, and the probe, introduced about one inch into it, came in contact with a hard body. The sound heard on striking was dull, and very unlike that produced by meeting with necrosed or carious bone. The ball was lodged in front of the neck of the astragalus, though its presence could not be detected by examination of the instep in consequence of the tension of parts in that region. I was, however, perfectly certain that the ball was there, and advised gradual dilatation. But M. Porta, who explored with his finger, did not agree with me.

"On my return to Paris, I endeavored to contrive exploring instruments which should convince those who were not of the same opinion with myself. I thought, first, of a sound ending in a kind of file, which could take off a few metallic particles. I had some constructed; but M. E. Rousseau gave me the idea of an instrument which would bring away particles of metal. We had, therefore, a probe made, to the end of which was fixed an olive-shaped body, made of unpolished china, upon which mere contact would leave a mark of the projectile, and prove its presence. M. Charrière made several instruments of this kind, composed of a silver stem, ending in a china knob. The mere rubbing of this instrument against lead is sufficient to make a stain, which neither the soft parts nor the morbid secretions could obliterate; a simple rotation of the instrument upon its axis fixes upon it a kind of meridian.

"But affirmations of mine are not sufficient—proof is the main thing; nor has this been wanting, for with this instrument, Professor

Zanetti became so certain of the presence of the ball that he forthwith extracted it.—*London Lancet*, Dec. 6, 1862.

THE DANGERS OF HOME DOCTORING.—A Surgeon of Birmingham recently prescribed, for a woman of that place, a medicine containing morphia, for the cure of a cough, which had the desired effect. Shortly afterwards, on her infant suffering likewise from cough, the woman administered to it "some" of the medicine, which was attended with a fatal result. The coroner's jury which was summoned on the occasion, apparently wishing to avoid casting censure either on the surgeon or the mother, returned the singular verdict, "Died by the visitation of God."—*London Lancet.*

THE anniversary meeting of the Woman's Hospital Association was held in New York on the 31st ult. Over 400 out-door patients received medical and surgical aid during the last year, gratuitously, besides the free list in the hospital. Dr. J. Marion Sims was the founder of this institution; and he and Dr. Thomas Addis Emmet are now its surgeons, the latter having charge of it.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, FEBRUARY 7TH, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - -	50	23	73
Ave. mortality of corresponding weeks for ten years, 1853—1863,	41.0	35.4	76.4
Average corrected to increased population - - - -	00	00	84.23
Death of persons above 90 - - - - - - -	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
9	8	3	5	0	0	2	3

TO SUBSCRIBERS.—Owing to the great amount of other work in the JOURNAL office, the printing of the Index to Vol. LXVII. has been delayed, and is not yet finished. As soon as completed, the sheet will be forwarded to subscribers as usual.

TO CORRESPONDENTS.—A paper on the Treatment of Diphtheria, by Dr. C. S. Elliot, of North Sidney, Cape Breton, has been received.

MARRIED,—At Cambridge, 7th inst., Dr. Edward B. Dalton, U.S.A., to Sarah H., daughter of the late Warren Colburn.

DIED,—In Coxsackie, N. Y., on the 22d ult., Dr. Henry Collier, in the 31st year of his age. Dr. C., while a practising physician in the town of Athens, N. Y., received the appointment of Assistant Surgeon of the 120th Regiment N. Y. Vols. Although then in good health, the arduous duties and the exposures of a few months brought on a fever, on the subsidence of which consumption fastened upon him and rapidly brought him to the grave. Dr. C. was well educated, unexceptionable in character, of rare qualifications as a physician, and died greatly lamented.

DEATHS IN BOSTON for the week ending Saturday noon, Feb. 7th, 73. Males, 50—Females, 23.—Accident, 1—apoplexy, 2—disease of the bowels, 1—congestion of the brain, 1—disease of the brain, 2—cancer (of the stomach), 1—consumption, 9—convulsions, 2—croup, 8—diarrhea, 1—diphtheria, 3—dropsy of the brain, 2—scarlet fever, 3—typhoid fever, 2—disease of the heart, 3—disease of the hip, 1—hypercatharsis, 1—infantile disease, 3—congestion of the lungs, 1—disease of the lungs, 1—inflammation of the lungs, 5—pistol-shot in the lungs, 1—marasmus, 2—old age, 3—premature birth, 1—rheumatism, 2—sore throat, 3—suicide, 1—toxicohæmia, 1—unknown, 6.

Under 5 years of age, 30—between 5 and 20 years, 4—between 20 and 40 years, 25—between 40 and 60 years, 6—above 60 years, 8. Born in the United States, 54—Ireland, 13—other places, 6.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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A GIRL AGED TEN YEARS, EIGHT MONTHS AND SEVEN DAYS, DELIVERED OF A HEALTHY CHILD AT THE FULL TIME OF PREGNANCY.

[Communicated to the Suffolk District Medical Society and to the Boston Medical and Surgical Journal.]

Dr. Josiah Curtis, of this city, in his Annual Report to the Legislature, of the Marriages, Births and Deaths in the State for the year 1858, alluded to this very remarkable case, and being much interested in it, he has since that time collected the most satisfactory evidence of the facts. For the last year or more, Dr. C. has been at the South with the Army, and at the last meeting of the Society, portions of letters were read that were sent by him:—1st, from Mr. Allen Presbry, one of the Overseers of the Poor in the town of Taunton, in this State; 2dly, from Dr. Alfred Baylies, of Taunton; and 3dly, from Mr. David Bassett, Superintendent of Almshouse at Taunton.

Mr. P. says (Nov. 15, 1858):—"Elizabeth Drayton was born at the Almshouse in this town, May 24th, 1847; so says the record in the old Family Bible belonging to that establishment, and so also says Dr. Alfred Baylies, who was with the mother when Elizabeth was born. His book also corresponds with the time and circumstance. Dr. Baylies was also with Elizabeth on the first day of February last, when this male child was born, a nice, full-grown, plump baby, weighing eight pounds, good weight. These are facts, against which there does not exist the shadow of a doubt.

"The reputed father of this child is a lad said to be about 15 years old, and belongs to the State of Maine. There are some circumstances in this case which go to prove that this precocious girl was pregnant twenty-four days before she was 10 years old. On the first day of May, 1857, they were detected in their illicit pleasures by his aunt, who lives in Norton, with whom she had lived two years or more, and to whose house he had come to make a visit of two or three weeks. Immediately after they were caught together, he was sent home forthwith to his father, who resides in Bangor, Me. The child was born the first day of February, 1858, leaving a space of just nine months. He is a fine little fellow, of a very handsome model, hair curls a little, has a bright blue eye, and to all human appearance he has the essential elements in him to make a great man. His growth thus far corresponds with his age. The mother is a fleshy, healthy girl, and rather larger than girls of her age."

Dr. B. (Dec. 20th, 1859) gives the same dates as Mr. P. for the birth of the mother and her child, and says:—"They are of pure Yankee blood and in fine health. The mother menstruated once or twice before conception, was of good size for her age, and was tolerably healthy during gestation, but had a rather lingering time at her confinement, which lasted two or three days, though perfectly natural. The child weighed at birth 8 pounds, and to-day he weighs 37½ pounds. The child nursed his mother until last March, at which time he was weaned, though from paucity of nourishment he was fed somewhat after three months. The reputed father of this child was, at the time of conception, between 16 and 17 years of age. The warden of our Almshouse, both he and his wife, Mr. and Mrs. Bassett, think the little boy uncommonly smart, and in appearance he beats all the boys of his age that I have seen. He appears well formed, and of great muscular strength."

Mr. Bassett (April 28, 1861) also confirms the dates as to the birth of the mother and child. "This last," he says, "is now living with us at the Almshouse. His weight is 46 pounds, he is 3 feet 5 inches high, he enjoys very good health and always has, is very strong for a child of his age, both in body and mind, and shows a strong desire to be captain in all the athletic plays which the children generally engage in, some of whom are much his seniors in age. * * * The mother was rather large of her age, and for nearly a year was complaining; she now has perfect health."

Dr. Curtis has examined a number of works, and has found no record of a case that was parallel to the one above related. The following references were sent by him.

Dr. Tanner says (Signs and Diseases of Pregnancy, p. 9, London, 1860):—"The earliest age at which pregnancy is positively known to have occurred in this country, is eleven years. When in labor, the girl was seized with convulsions, but was delivered of a full-grown, stillborn child, without unusual difficulty, and she recovered favorably." Delivery occurred when "she was only a few months advanced in her twelfth year. Her figure was that of a full-grown young woman. Mammæ were fully developed, and it was proved that she had menstruated before she became pregnant."

Dr. Montgomery says (Cyclop. of Practical Medicine, Article Signs of Pregnancy):—"Conception before the age of 14 is very rare, but it appears that instances of it have occurred. Bruce mentions that in Abyssinia he has frequently seen mothers of eleven years of age, and Dunlop witnessed the same in Bengal. La Motte delivered a girl who had not completed her thirteenth year. Instances of conception at 9 and 10 years of age are recorded by Jubert and others, but they scarcely appear deserving of credit; yet we find Dr. Good expressing his assent to such relations, and quoting Haller and Professor Schmidt in support of them. The earliest instance of pregnancy known to the writer was that of a young lady, who brought forth twins before she had completed her 15th year. Sir E. Home knew two instances, in one of which a girl of 13, and in the other a girl of 12, gave birth to children."

CASES OF THORACIC EFFUSION RELIEVED BY THORACENTESIS.

By William Warren Greene, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

Although the first case here reported was published* some years since, yet from its interesting character and the fact that it came under the eye of but few members of the profession in New England, I deem it proper to offer it for republication in this connection.

Case I.—April 14th, 1855, was called to see Martha Perkins, of Stoneham, Me., aged 17; of healthy parentage, and previous to present illness in excellent health.

From the parents I learned that some time in January, of the preceding winter, she received a blow upon the left side just below the mamma. This was followed by considerable soreness and cough, which had never entirely left her, although she had been able to perform a moderate amount of labor until March 1st; when, after exposure to cold and wet, she was seized with "sharp pain" in the left side, "short breath," and "burning fever." She was treated by another physician for three weeks, who pronounced her convalescent, and left her. Since that time she had been under no treatment whatever, the parents having, as they expressed it, "been waiting for her to get well."

The following notes were made at the examination:—Is wholly confined to the bed; decubitus dorsal; emaciated; pulse 150 per minute, small and sharp; bowels constipated; urine scanty. For several days past has suffered every afternoon from "chills, followed by high fever"; and for three days previous the "chills had been very severe." Respiration 40 per minute, and laborious; night sweats. Left side of thorax measures two inches more than right; intercostal spaces bulging; no motion on respiration. Total absence of any respiratory sound, except slight tubular breathing just beneath the clavicle; bronchophony painfully distinct. The whole side perfectly flat on percussion. Sounds of the heart not heard in their normal position, but distinct, as is its impulse upon the right side of the sternum. Puerile respiration in the right lung. Diagnosis—sero-purulent effusion in the left pleural cavity.

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* Peninsular Journal of Medicine and Surgery, vol. iv., No. viii.

From the length of time during which, in all probability, the lung had been crippled by the effusion, the now purulent character of the latter as evinced by the rigors and hectic, and from the extreme debility of the patient, *paracentesis thoracis* seemed to be imperatively demanded. The friends, however, would not consent to the operation, and I was obliged to rely upon less efficient means. These consisted of diuretics and hydragogue cathartics, as freely as the debilitated condition of the system would allow (the iodide of potassium was borne in large doses); large blisters, frequently repeated; chalybeate tonics, and a nutritious diet. Under this management a very rapid improvement took place. A rapid diminution of the enlargement, dulness and bronchophony; ægophony taking the place of the latter in the superior portion of the cavity; the increase in volume and diminution in pitch of the tubular sound; the occurrence of crepitant *rales;* these subsequently giving place to the natural respiratory murmur, the boundaries of which daily increased; all indicated absorption of the fluid and expansion of the lung. In four weeks from the first visit, the hectic symptoms had almost entirely disappeared. She was able to sit up several hours per day, had a good appetite, and was gaining flesh. But although the superior two thirds of the cavity appeared to be clear, yet at the lower third there was a degree of dulness on percussion varying with the position of the patient, which, with the absence of respiratory murmur and a slight hectic tendency, gave evidence that a portion of liquid still remained. Of this I informed the friends, explaining to them the nature of the collection and the probable result of the case unless exit were given to the morbid matter. Still they would not consent to the "tapping."

At last, however, leave was reluctantly given to introduce a seton, and I determined to invite nature's assistance in having my own way. Accordingly, instead of using a seton-lancet, I substituted a curved spear-pointed bistoury, introducing the silk with a probe, endeavoring to carry the point of the knife as near as possible to the pleura without puncturing it. At the next visit I was gratified to learn from the nurse that, on starting the silk thirty-six hours after insertion, a stream of greenish-yellow liquid issued from the wound, and that it had continued to discharge profusely. Thus had thoracentesis been performed in a manner to me, at least, novel.

From this date (June 3d), the improvement was very rapid. After a few days the discharge gradually lessened in quantity, improving in quality, and in three weeks ceased altogether.

The following are the memoranda of an examination made July 4th.

No cough, pain or tenderness ; weak, but able to go about the house and ride; appetite and digestion good, and realizes that she gains strength slowly. Sleeps well at night, resting on either side without inconvenience; side appears shrunken, the lower ribs hav_ ing fallen together so as to obliterate the intercostal spaces. Respiration in central and upper portion of lung natural; in lower portion feeble; no rales; heart apparently occupying precisely the median line. Sounds of right lung normal. Seton now withdrawn.

Aug. 2d, was again called to see her, and learned that two days previously she had seated herself in a current of cool air while perspiring freely. She very soon "had a chill," sharp pain in the left side, and began to cough. All the signs of effusion were again present, upon which treatment had very little effect (any operation being obstinately refused), and to which the general strength rapidly succumbed. The right lung at this time gave no abnormal sound; but, in less than two weeks, prolonged expiration and slight dulness on percussion at the apex, gave notice of trouble, and thereafter all the symptoms of tubercular deposit and softening were rapidly developed.

On visiting her Sept. 5th, I was informed that she had suffered much the night previous from cough and dyspnœa, but was much relieved early in the morning, by "vomiting a greenish offensive fluid," to the amount of about a quart. When I was about to examine the side, she requested to be turned a little to the right, which being done she made a slight effort as if to vomit, when a large stream of fœtid pea-green liquid flowed from the mouth, to the amount of three pints. So free and easy was its exit, that the expression of the bystanders was "it ran away." *There was no sense of strangling or suffocation.*

Upon examining the affected side, it was found much diminished in size, and instead of yielding perfectly flat percussion sounds as before, was tympanitic anteriorly; dull laterally and posteriorly, the patient lying on her back. On applying the ear, a clear *tinkling* sound was heard on inspiration (none on expiration), which, when she was turned partially to the left, gave place to a distinct *gurgle.* She complained of distress in that position, and on being again turned to the right, a small amount of liquid was again discharged from the mouth. There was nothing of this sort *expectorated*, in the common acceptation of the term; although it was *ex-pectore*, as the *post-mortem* examination proved. About a pint of liquid was ejected from the mouth two hours before death, which occurred Sept. 8th.

Autopsy, 24 hours *post-mortem*—thorax only examined. Left pleural cavity contained a considerable portion of air, and between four and five pints of liquid, identical in character with the *ante-mortem* discharge from the mouth; costal pleura thickened, corrugated, and bathed in pus. In the apex of the cavity, a small fleshy mass as large as a hen's egg, and extending downward from this, lying upon and adherent to the mediastinum, a membranous layer of friable tissue, and in this a ragged opening, through which the finger passed readily into the bronchus—thus explaining the "vomiting." From near the edge of this opening, a firm, fibrous cord, one eighth of an inch in diameter, passed directly across the cavity and was attached to the parietes. The upper lobe of the right lung riddled with cavities; lower lobe hepatized. Heart entirely to right of median line, and bound in its place by firm adhesions; about four ounces of straw-colored fluid in pericardium.

This case was seen repeatedly by Dr. Y. B. Walker, of Waterford, Dr. S. C. Hunkins, then of Waterford, Dr. D. G. Towne, of Lovell, and others. Students Edmund Barker and D. Grover assisted in the autopsy.

Case II.—Joseph Mitchell, of Pownal, Me., aged 23, of healthy parentage, and himself previously healthy, consulted me Nov. 20th, 1859, for a slight sore throat. This was readily relieved. Dec. 8th, he was attacked with acute pleuro-pneumonia of left side, of moderate severity. This ran its course kindly, and three weeks afterwards I examined his chest carefully and found it normal.

Feb. 16th, 1860, I was again called to see him, and found him suffering with pleurisy of the same side, contracted from exposure to cold and wet. The acute symptoms readily yielded to treatment, but left quite extensive effusion in the chest. Under the use of iodide of potassium, acetate of potash, laxatives and large blisters, this rapidly disappeared, and on the 10th of March I could detect no evidence of any fluid. He was still suffering, however, from pain and soreness in the side, and from cough. I now lost sight of him until May 25th, when his father came to me, saying that his son was very sick, having had another "attack of lung fever" three weeks previously, and had been under the care of another practitioner.

On visiting him, I found him suffering from dyspnœa, an unavailing cough, and with marked hectic symptoms. The left side of the chest one inch larger than the right by measurement; intercostal spaces a little fuller than natural; no motion in respiration; heart displaced to right side of sternum. Upon and immediately below the clavicle, percussion elicited a flat sound; thence to the fourth intercostal space tympanitic, below which the sound was perfectly flat again; the level of dulness varying with the position of the patient. The succussion sounds were very distinct; so marked that the patient heard them, and would produce them at will. No respiratory sound, except a beautiful *metallic tinkle*. Sounds of right lung normal, with the exception of puerile respiration.

Neither patient nor friends would consent to an operation until the 10th of June, when they found all treatment was unavailing. On this day, with the assistance of my friend Dr. J. K. Mason, of Suffield, Conn., then my student, I opened the chest in the seventh intercostal space, and drew off fifty-eight ounces of sero-purulent fluid. Finding the chest did not collapse, but as the line of dulness descended clear tympanitic resonance followed, I closed the opening for five days, when I again punctured and drew off forty ounces more of the same character. Before commencing the last operation, the same clavicular dulness, with tympanitic resonance below, existed as before, and the side measured only one fourth of an inch less than before the first operation. No metallic tinkle could be detected. After the last operation, the measurements of both sides were equal. No expansion of lung, the clavicular flatness remaining, and a tympanitic resonance existing over the remaining portion of the side. The resonance was considerably diminished at the base of the chest. The position of the heart changed but very little. From this date his condition steadily improved. The dyspnœa was much relieved, but not entirely; nor was the cough. These symptoms, however, abated gradually, at the same time that the hectic condition disappeared, appetite became good, and strength and flesh increased.

About the middle of October following he came to my office, calling himself, and looking, well. He was in his usual flesh, able to bear a large amount of active exercise without fatigue. Had no cough or pain in the side, nor any soreness, except occasionally in damp weather. He admitted, however, that exercise "put him out of breath more than it used to."

The chest remained almost unchanged. No evidence of effusion, but no shrinking, or but a mere trifle. No expansion of lung or change in position of heart, the cavity evidently being almost entirely filled with air.

In November following he went to California; bore the voyage well; remained well through the winter, which he spent pleasantly, without any hard labor. In the April of 1861, he took charge of a farm, and through the summer, to use his own expression, "did as much work as anybody," suffering no inconvenience.

In September, he got chilled by exposure to rain, and was attacked with pain in left side, cough, and subsequently dyspnœa, accompanied by considerable febrile action and tenderness at the point of puncture, all of which symptoms were suddenly relieved, on the twelfth day, by a profuse discharge of pus from the side, at the site of the original opening. He insisted that it discharged as much as when I opened it. Three weeks afterwards he was at work again, well as before.

He now continued well, and actively employed in farm work, until September, 1862, when he was suddenly attacked with inflammation of the *right* lung, which proved fatal in a few days.

This case was seen repeatedly by Dr. Webb of Bridgeton, Dr. Hunkins of Windham, Dr. Sylvester of Pownal, and others.

For his history while in California I rely upon his own statements, which were perfectly reliable, and those of his friends and physicians there.

[To be concluded.]

PRACTICAL OBSERVATIONS ON, AND THE TREATMENT OF DIPHTHERIA, WITH ILLUSTRATIVE CASES.

By E. N. Chapman, M.D., Prof. of Therapeutics, Materia Medica, &c.

[Communicated for the Boston Medical and Surgical Journal.—Continued from page 36.]

Case XII.—Mrs. H., Poplar St., 33 years of age, had been expectorating blood in large quantities for ten days. She was reduced to an extremely anæmic condition. In addition to the loss of blood, there was a dry cough, sibilant rhonchi all over the chest, and dulness on percussion at the top of the right lung. She had persisted in nursing a child, past two years of age, to the present time. Nursing was interdicted, and the following prescription directed, with beef-tea as nourishment. ℞. Sol. ferri persulphatis, ʒ iss.; aq. fontanæ, ʒ vi. M. S. Fifteen drops every fourth hour. The iron had a most favorable effect on the hæmorrhage, which, gradually abating, had nearly disappeared in three days; but the other lung-symptoms remained the same. At this time a diphtheritic patch showed itself on one tonsil, and, on the next morning, covered the entire fauces. The swelling and congestion were very great, both internally and externally, rendering deglutition nearly impossible. Discontinuing the iron, I directed quinine and whiskey—of the first one fourth of a grain, and of the latter a teaspoonful, every second hour. At first, the stimulant flushed her face; but, eventually, by a gradual increase, she took a dessert spoonful without any excitement. The quinine was lessened on the fourth day, and omitted on the sixth, on account of the troublesome noises in her ears. No other medication, unless demulcent drinks of flax-seed tea be so considered, was employed. Swallowing was so painful that nourishment in any amount was not taken until the disease was on the decline. On the third day of the Diphtheria, the membrane, raised, yellowish and slightly detached at its margins, began to fall off, and on the sixth day the throat was free from it. Now, however, it had extended over the mouth, covering the tongue and inside of the cheeks. In ten days the disease disappeared from the mouth. There was now copious purulent expectoration, great debility and colliquative perspiration. The only treatment, excepting the quinine given the first five days, was free stimulation; yet the pseudo-membranous inflammation of the fauces and mouth, the inflammation of the bronchial tubes, and the congestion of the upper portion of the right lung, were successfully met and subdued by these means. Even the hæmorrhage, so prone to be aggravated by excitants, ceased, and did not return. Her convalescence and recovery, which were attended with no accident, were perfected by the same medication. This family, in which were four children, had, fourteen months previously, suffered the loss of a daughter with Diphtheria, at their present residence. The other children escaped the disease.

Case XIII.—Mrs. M., Furman St., aged 35 years, the mother of four children, was taken with the Diphtheria, July 27th, two days before I was sent for. The fever was high, the skin alternately dry and perspiring, the pulse 120 per minute, and the throat much tumefied, externally and internally, with a bloody, membranous exudation, coating the fauces. She was ordered a teaspoonful of brandy and one fourth of a grain of quinine every one and a half hours, with flaxseed tea as a drink. On the second day the dose of brandy was doubled, and thus continued until convalescence; when it was lessened, but not omitted, while there was any remaining debility. The quinine was only administered the first three days. On the second day, the subsidence of the fever, irritability and congestion, was remarkable. The course of the disease was similar to that of the last case related. In six days the membrane disappeared, and was not renewed;—and the tonsils regained nearly their natural size; though the pulse was still over 100 per minute and the patient was extremely debilitated. By stimulation and nourishment she recovered her health in about a month.

A child that this woman was nursing, previously well excepting a slight peevishness from dentition, became violently affected with vomiting and purging on the second day of my attendance, and died from asthenia in seventy-two hours. No medication had the least effect. It might be a question whether the mother's milk was not the cause of this rapid and fatal sickness—and whether, notwithstanding the non-appearance of the membrane, the disease in reality was not Diphtheria.

Case XIV.—Nine days after the mother's seizure, the eldest girl, 10 years of age, was attacked. She had similar symptoms as to fever, pulse, and tumefaction and inflammation of throat, but the exudation only covered one tonsil. She was put upon the same treatment, which attained equally gratifying results—a rapid subsidence of the fever and inflammation, and a removal of the exudation in five days. There was no relapse or other accident.

Case XV.—Twelve days after the attack of the girl, a boy, 8 years old, sickened, apparently with the same disease, as he had similar symptoms. He was ordered the brandy and quinine mixture. On the second day, the surface of his body was uniformly covered with the eruption of scarlatina, of a bright natural hue. For twenty-four hours the stimulant was omitted, but on observing a membrane coating the fauces, it was resumed in a lessened proportion, and continued to the close, as in the other cases. The fever, high for three or four days, at night was attended with delirium. The exudation disappeared in eight days, but the boy was left extremely anæmic and semi-paralytic. Directly dropsy supervened, which continued for nineteen days. At the end of this time the defect of nerve power, which first showed itself on the falling of the membrane, still continued, and was so great that the patient could barely maintain himself on his feet. Recovery was not complete before the end of the sixth week. The treatment consisted of animal food and stimulants, with the addition of diuretics, whilst the dropsical symptoms existed. The only remaining child had a mild attack of scarlet fever, but escaped the Diphtheria. The girl, previously affected with the Diphtheria, did not take the scarlet fever, though she never had had this latter disease. I should state, that the mother attributed her sickness to washing clothes at her sister's house, where a child, having a severe affection of the throat, died of scarlet fever.

Case XVI.—An infant, 14 months of age, had scarlatina anginosa; and, when the eruption was on the decline, she became worse, apparently from the increased swelling and inflammation of the tonsils. There was a plastic exudation covering the fauces, great prostration and rapid sinking, followed by death in twelve hours. Had the diphtheritic tendency been detected at an earlier period, and stimulants administered, which now from the state of the throat was impossible, perhaps the result might have been more fortunate.

Case XVII.—The elder brother of the boy who had the Diphtheria in February, and whose history is given in Case IX., was attacked with this disease, simultaneously with his aunt, the September following. His nostrils, filled with the exudation, had discharged blood several times the two previous days; and his fauces, though slightly congested, were coated with patches of membrane. There was no permanent heat of skin or general fever, but great irritability and prostration, as shown by the rapidity of the pulse and its lack of volume. The boy was healthy, though of a scrofulous constitution, had been allowed a great deal of exercise in the open air, and was eating heartily up to the time of seizure. He had had the scarlet fever. This patient took two teaspoonfuls of brandy every second hour for five days, when quinine was added. Large plugs of the exudation, constantly forming, were discharged from the nostrils.

At this time, the beginning of the third week, no hæmorrhage had taken place for four or five days; the fauces, though the membrane had re-formed several times, were now nearly free, and the exudation in the nostrils, less in amount, was more slowly renewed. Thinking that the quinine had accomplished all it was capable of, we substituted for it the muriated tincture of iron. The membrane ceased to return in three weeks, but the other symptoms remained much as at first—the pulse above 100 per minute, soft and easily compressed; a blanched countenance, like that seen after scarlet fever; and great disposition to perspiration. There was a nasal voice, and the finger, inserted into the back of the throat and freely moved in all directions, did not cause contraction or any effort to vomit. This paralytic condition continued for four weeks after the falling of the membrane, at which time the depraved state of the blood was nearly removed. In two months and a half the patient attained his usual health, and has since suffered no relapse.

Case XVIII.—This boy's aunt, of a similar constitution, was attacked the same day. There were no general symptoms, though the tonsils were swollen, and one had a patch of membrane upon it the size of a ten-cent piece. In three days, under the use of brandy, this condition disappeared, and all evidences of disease were removed.

Case XIX.—On the third day of my attendance on these two patients, the younger brother, who had the Diphtheria in February, was taken with a violent inflammation of the throat, which was attended with a high fever, and a full, bounding pulse, numbering over 100 pulsations per minute. There were all the appearances of a severe attack of tonsillitis—the mucous membrane of a bright, florid color and covered with a secretion of mucus, which was abundant and yellow, but stringy and tenacious.

On the second day, the secretion in the fauces became more plastic, adhering together firmly, and resembling the albuminous product observed in uterine catarrh, though still intermixed with the ordinary mucus. For this reason, it was now deemed proper to discontinue antiphlogistic medication, and for fear that Diphtheria was in a state of incubation, resort to brandy and quinine. For the following three days there was a subsidence of the fever and inflammation, and a change from an albuminous to a mucous secretion; so completely, that I questioned the tendency to the formation of a membrane, and concluded to omit the brandy and quinine and give a laxative; which, as the bowels had not been moved for five days, seemed to be demanded. The cathartic operated very freely several times. On the following day the evidences of Diphtheria were unmistakable—greater congestion of the fauces than ever before, and a membranous exudation, firm, adherent, and distinctly formed. There was no spontaneous hæmorrhage. The brandy and quinine were resumed, and continued to the termination of the case.

On the next day—the sixth—the symptoms were alarming—extreme prostration, colliquative perspiration, imperfect aëration of the blood and a state of semi-consciousness, from which, however, the child would arouse when spoken to; in short, every evidence of an approaching collapse, similar to what is observed in fatal cases of yellow fever or Asiatic cholera.

During the seventh day, the above symptoms were intensified—the pulse flickering and uncertain, the child unconscious to any impression, and the skin of a deep blue color, though there was no impediment to inspiration.

By my request, Dr. Mason now saw the patient, but no amount of stimulation produced any effect, and the boy died at 11, P.M., from the poisoned state of the blood.

Case XX.—Mr. B., Fulton Avenue, 35 years of age, a baker by trade, working in a close, under-ground room, of a pale look, emaciated appearance and of a weak, delicate constitution, was taken with a sore throat Nov. 1st, 1862, and had fever, thirst and inflamed tonsils—in other words, was seemingly attacked with tonsillitis. On the second day, the mucous cryptæ were filled with a white secretion. giving the parts the appearance of follicular inflammation. On the third day, many of these white spots had coalesced; and the uvula, becoming inflamed, had a small patch of exudation on its surface. There had been epistaxis during the night; and the tonsils, disposed to bleed, were now covered with drops of blood, which exuded on forcibly depressing the tongue. The patient experienced an aggravation of symptoms from a gargle of the sulphate of zinc, which he had been using. Both this and a diaphoretic mixture were discontinued, and brandy and quinine substituted. He took, continuously, half an ounce of brandy and half a grain of quinine every second hour until there was ringing in his ears; when the latter was omitted and the stimulant alone administered. The brandy was continued in a gradually diminished dose until convalescence was established, and then iron was given to improve the quality of his blood.

Directly after commencing this course of medication, the disposition to spontaneous hæmorrhage was overcome, the congestion of the fauces abated, and the membrane, becoming thick and yellow, fell off, and was not renewed. At this time the uvula, being implicated, turned of a black color at its extremity and sloughed off. Counting from the first appearance of the membrane, it was ten days before the fauces were free of it, and the patient, though using such bracing and sustaining remedies, was daily getting weaker and more debilitated. Now he was scarcely able to maintain the erect posture, his legs giving way from under him; and he sweat profusely, drenching the cloths whenever he slept; yet in two weeks more his usual health was regained.

Case XXI.—A little girl, 4½ years of age, who had uniformly enjoyed good health, and did not appear to be scrofulous, took the hæmorrhagic Diphtheria; which, attended with the usual symptoms, was promptly subdued by the use of quinine. The medicine was discontinued, contrary to orders, when, in a week's time, the disease returned as at first. The quinine was again promptly successful; and then, to guard against a relapse, it was continued in a diminished dose, in connection with wine whey, for two weeks afterward. Though more than a year has elapsed, the child has not since suffered from this disease.

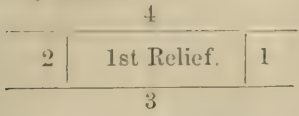
Case XXII.—During the session of 1861, a little girl, 11 years of age, presented herself at the College Clinique, brought there by her mother. Four weeks previously, she had the Diphtheria, simultaneously with three other children in the same house. All, except this one, died, and she escaped as by a miracle. The mother stated that her throat was in a frightful condition, that there was bleeding from the nose, and that, after some two weeks, these symptoms abated, when her weakness was very great, and she was both blind and deaf. After a time, the power of the arms was lost, when sight and hearing began to return. In a few days more, the legs began to be affected, at which period she was presented to my notice. The power in all of her extremities was nearly equal, though very imperfect and uncertain, hearing and sight apparently good, the countenance stupid and idiotic, and great dulness of the mind, which seemed to partake of the general lethargy. This case was treated with brandy and good food. In a few days there was a general improvement in all of the upper portions of the body; but walking was much more difficult, and well nigh impossible. The child, from this time, was not brought back for twelve days; the mother, who came to renew the prescription, stated as a reason, that, from the loss of power in her legs, it was impracticable, although there was now less weakness in the arms, and her intelligence was improving. After her return, it was nearly three weeks before she regained the perfect use of her lower limbs. Eventually, however, she was completely restored in every respect, both in mind and body, as, several months subsequently, I had the opportunity of observing. The manner of this creeping paralysis was not a little remarkable, and, still more, the torpor of the brain, which resulted, for the time being, in an abolition of two of the special senses, and probably, though the stupidity of the girl was too great to determine this point, of the others also.

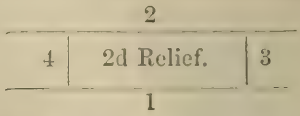
[To be continued.]

Army Medical Intelligence.

Hospital Notes and Memoranda. By J. Baxter Upham, M.D., in charge of Stanly General Hospital, Newbern, N. C.—A brief allusion has already been made to the formation of an ambulance corps in connection with the hospital. An account, somewhat more in detail, of the organization and operation of this corps may not be without interest.

It is composed of eight hand-ambulances or stretchers, and numbers forty men. Each stretcher is manned by a squad of four carriers, numbered 1, 2, 3 and 4: they should be as nearly equal in size and strength as possible. No. 1 takes command of the squad. Each squad is subdivided into two reliefs of two men in each. Nos. 1 and 2 form the first relief; Nos. 3 and 4 the second. Attached also to each squad is a fifth man, who precedes it on the march as a guide to the rest, carrying a lantern, if at night, and who may act as a reserve, if occasion requires. Of the first relief, while marching, No. 1 precedes, No. 2 follows, while Nos. 3 and 4 walk by the side of the stretcher, on the right and left respectively. Of the second relief, No. 3 precedes, No. 4 follows, while 1 and 2 accompany the stretcher at its sides, thus:—





The stretcher resting upon the ground, at the word "ready," given by the captain of the squad, it is raised gently and with an equable motion: at the next command, "march," all step off rythmically, Nos. 1 and 3 with the *left* foot, 2 and 4 with the *right*; at the word "halt," the squad stops, and the stretcher is gently lowered to the ground. The command is then given to "relieve," at which Nos. 3 and 4 take their places at the front and rear respectively, and 1 and 2 assume their proper position at the sides, as in the diagram above given. On resuming the march, 1 and 3 step off with the *left* foot, 2 and 4 with the *right*, as before. Should the command "reverse" be given, the squad halts, lowers the stretcher, faces about and proceeds in reverse order in the opposite direction, stepping off as before: bearing in mind that, in whatever movement, 1 and 3 *always* step off with the *left* foot, 2 and 4 with the *right*. The comfort of the patient while in motion greatly depends on a careful attention to this point.

Equally important is it that care and system be observed, in taking up and carrying a wounded man and in placing him on the stretcher, or in removing him from the stretcher to his bed. Preliminary to the reception of a wounded man and the lifting him from the ground, No. 1 takes his position at the right shoulder, No. 2 at his left, No. 3 at the right hip and 4 at the left. The leader of the squad now questions the patient as to the nature and situation of his wound, and, at the word given, he is lifted gently and by all at the same moment—is moved in a direction parallel with the sides of the bed or cot (if upon one), till it is cleared, and placed in the same manner upon the stretcher, those upon the right of the patient always keeping upon the corresponding side of the cot or stretcher, and *vice versa*. In like manner he is conveyed from the stretcher to his bed in hospital. In handling a wounded man it is to be borne in mind, as a general rule, to lift on the sound parts, and give gentle but firm support only to those that are injured. The following diagram will illustrate what has been said on these points.

FIG. I.

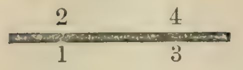


FIG. II.

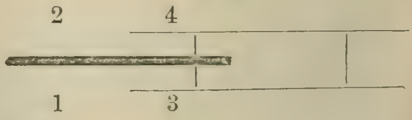


FIG. III.

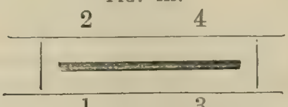


Figure I. represents the squad in the act of receiving and lifting the patient. Figure II. shows their position when about to place him on the stretcher. In Figure III. the patient is placed in position.

The squad then resumes its position in the order of march previously given, No. 1 passing round to the front, No. 2 to the rear, while 3 and 4 fall back to their places on the right and left of the stretcher at its centre. The bearers are never, when it can be avoided, to step across the cot or the stretcher, but are to take the patient, whether on or off, in a direction parallel to the sides. The patient, if able, will facilitate their labors and at the same time greatly assist himself, by placing his arms upon the right and left shoulders of the two immediately within his reach.

The practical utility and efficiency of this corps was recently tried in the reception of the wounded brought down in boats in great numbers, after the battles of Kinston and Goldsboro', and afterwards conveyed on stretchers from the landing to the hospital. Its organization and system of tactics and drill were necessarily improvised for the occasion, and such instruction and practice given as was practicable in the brief intervals of leisure between the starting of the expedition and its harvest of wounded and disabled men. But the quiet, the order and despatch, and comparative comfort to themselves and their patients, with which these new recruits accomplished their difficult task on one of the coldest nights of the season, well attests the value of some such organization in every military hospital. The men can always be found among the nurses and other employes, who, with small expenditure of time and labor, can be sufficiently drilled for any emergency that demands their aid.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, FEBRUARY 19, 1863.

Dr. Bowditch on the Causes of Consumption in Massachusetts.—Some months since the editor of a cotemporary medical journal, in noticing our remarks on Dr. Bowditch's Address to the Massachusetts Medical Society on this subject, said that the annual addresses before this Society were getting to be quite sensational, and that he should look for the publication of this one with much interest. The remark, which was intended as a sarcasm, in a more sober sense is fully justified by a careful perusal of this important contribution to medical science, as published among the Medical Communications of the Massachusetts Medical Society for the past year. No one can read this paper through, weighing fairly its facts and deductions, without a sensation, and that, too, of the most profound character. We are of opinion that it will prove to be one of the most valuable essays ever read before our State Society, and one which opens the way to a new field of observation and inquiry, promising to be fertile in great practical results in their bearing on the future health of our people.

As a specialist in the department of pulmonary diseases Dr. Bowditch was naturally selected by the Society, in 1851, as a committee to report on the following question:—"Pulmonary Consumption: its relative mortality in different regions of the State; and the real or apparent connection of this mortality with the physical character of the different regions, and with the social and industrial condition of the inhabitants."

In furtherance of this important inquiry, and to obtain all the information possible from the medical practitioners of our State, so that his report might be at once comprehensive and impartial, Dr. Bowditch sent circulars to members of the profession residing in every township in the State: and that it may be seen that this inquiry was made without anything to bias the interrogated party or lead him in his answers to support any special theory, we copy the questions in the circular:—

Name of township, and its population.
1. Height above sea level?
2. Distance from sea?
3. Is sea breeze felt there?
4. What winds most troublesome to consumptive patients?
5. What winds—North, East, South or West—most prevalent?
6. Is town liable to sudden changes from heat to cold?
7. Is town liable to sudden changes from dryness to moisture?
8. Is any part of town peculiarly liable to the prevalence of consumption?
9. If so, what, if any, are the peculiarities of the spot?
10. What is the atmosphere generally (cool? warm? dry? damp? foggy? &c.)?
11. What is the position of town (exposed? sheltered? warm? cold? &c.)?
12. Annual amount of rain (great? medium? small?)?
13. Annual amount of snow (" " ")?
14. Employment of citizens (farming? fishing? factories? trading? &c.)?
15. Soil (geological structure? rivers? ponds? bay? meadows? marshes? hills? valleys? &c.)?
16. Cultivation (very rich? good? medium? poor?)?
17. Social condition (rich? medium? poor? buildings? &c.)?

And subsequently:—

Population of town.
Population (at least approximatively) of each district.
Number of deaths by *all* diseases in each district.
Number of deaths by consumption in each district.

To this circular returns were received from all the townships in Massachusetts (325), and from these returns Dr. Bowditch was led to the very decided medical opinion developed in his address. Additional information has also been received from the States of Maine, New Hampshire and Rhode Island. The two following propositions contain the essential points in this important paper:—

First. A residence on or near a damp soil, whether that dampness be inherent in the soil itself, or caused by percolation from adjacent ponds, rivers, meadows, marshes or springy soils, is one of the primal causes of consumption in Massachusetts, probably in New England, and possibly in other portions of the globe.

Second. Consumption can be checked in its career, and possibly, nay probably, prevented in some instances, by attention to this law.

These propositions the author proceeds to prove on the broadest foundation of facts and opinions. The State Registration Report; the medical opinion of the profession throughout the State, as unfolded in the replies to his circular; the actual statistics contained in these replies, and the special information with regard to certain localities (even so limited as a single house in some instances), where consumption has been noticed as peculiarly prevalent; confirmatory facts from other States; the medical statistics of the United States Army Report; the author's own personal experience; and, finally, the apparent exceptions to the law of causation which the whole mass of evidence had forced upon him—upon this broad foundation does Dr. Bowditch, in a spirit of the strictest judicial fairness, proceed to erect his superstructure of Theory, which promises to be of infinite value to our own and future generations, in diminishing the sphere and restraining the ravages of the fearful malady which is such a scourge over a large portion of the globe at the present day. We cannot follow Dr. Bowditch through the whole course of his argument: to do this we should be obliged to copy the whole address. It is founded on a solid basis of facts, and illustrated with most interesting details of cases, and brings the reader, in our opinion, irresistibly to the conclusion unfolded in the propositions with which he commenced. It furnishes matter for the most serious consideration, and lays upon the profession generally the duty of exerting all the influence in their power to enlighten the community with regard to the dangers which they are constantly exposing themselves to, in selecting the spots for their habitations. It raises a more important question than has ever before been presented to a New Englander on this subject, and it throws a fearful responsibility on all who disregard the warning which it proclaims to the world. The address is published among the Medical Communications of the Massachusetts Medical Society for the year 1862, but can be obtained in a pamphlet form of Messrs. Ticknor & Fields. It is illustrated with a valuable map of Massachusetts, colored so as to show the comparative prevalence of consumption throughout the State. It should be read universally, by the community as well as by the medical profession.

At the last meeting of the Trustees of the Massachusetts General Hospital, Dr. Solomon D. Townsend tendered his resignation of the place, which he had so long and honorably filled, of Surgeon to that institution, and Dr. R M. Hodges was appointed his successor.

The following resolutions, presented by the President of the Board, were unanimously adopted:—

"*Resolved*, That in accepting the resignation now tendered to them by Dr Solomon D. Townsend, the Trustees, in justice to him and to themselves, feel bound to express the high appreciation of his long, faithful and valuable services in behalf of this institution. 'Consulting Surgeon' to the Hospital from the year 1835 to the year 1839, and 'Acting Surgeon' from that time to this, a period of nearly a quarter of a century, he has, daily, without fee or pecuniary reward, given a full share of his time and professional skill to the patients committed to his charge: and, by his ability, sound judgment, assiduity and kindness, his consistent and gentlemanly conduct, has at all times, during this long term of years, won the respect and esteem of his professional associates and of all the various Boards of Trustees. In parting from him, the Trustees would therefore offer to Dr. Townsend their hearty thanks for all the good he has done to them and the public in the past, and their most sincere wishes for his welfare and happiness in the future.

"*Resolved*, That Dr. Townsend be requested to sit for his portrait or bust, and that a committee be appointed to carry this resolution into effect."

THE attention of the medical profession has been recently called anew to the alleged efficacy of nitrous oxide as a remedial agent. In this connection the following, which we find in the *American Journal of Pharmacy,* is interesting:—

PREPARATION OF OXYGENATED WATER, AND ITS THERAPEUTICAL USE.—Dr. Ozanam gives the name of oxygenated water to water which is distilled and afterwards charged with oxygen under the influence of high pressure. The experiments he made have led him to establish three modes of operation by this new medicine. 1. It improves the condition of the blood in cases where that fluid is impaired or deficient, as in dyspnœa, asthma, slow asphyxia, cyanosis, diseases of the heart, hæmorrhoids, and hæmorrhoidal visceral congestion. 2. It possesses an oxidizing or metamorphic action in cases where the organic products are arrested in their development, as happens in glucosuria, gout, the uric and oxalic gravel, and perhaps in scrofula. 3. It exerts an exciting and regulating action on the brain and thyroid gland, and hence its use in goitre and cretinism. If, in fact, snow-water taken as drink gradually produces these morbid conditions, it is because it is entirely deprived of vital air. On the other hand, oxygenated water, as well as the inhalation of gaseous oxygen, produces no results in hemicrania, and unfavorable ones in cases of inflammatory disease. Thus, in croup, the oxygen temporarily tranquillizes the dyspnœa, but increases the fever. In the treatment of ulcerated cancer the oxygenated water revives pretty well the powers of the patient, and the wounds assume a more vivid and rosy color, but they do not heal; and if the surfaces are bathed with rags steeped in oxygenated water, even when very slightly charged, the ulcer is soon observed to become gangrenous on the surface. Oxygenated water is perfectly limpid and pure, and the gas is disengaged in the form of very fine bubbles. Having little taste, it resembles in this respect water which is deprived of air; and, like the latter, it is a little heavy for the stomach.—*B. and F. Med.-Chir. Rev.*, July, 1862, from *Compte. Rendu. de l'Acad. des Sciences*, Nov., 1861.

ACCLIMATIZATION OF SPONGES.—M. Lamiral, whose departure for the coast of Syria with a view to obtain sponges for transplantation we mentioned in April last, has now returned, and presented a detailed report of his proceedings to the Société d'Acclimatation. M. Lamiral distinguishes three kinds of sponges for which there is a demand—the fine soft sponge, called *abiand;* the fine and hard sort, called *achmar;* and lastly, the common sort, called *cabar* by the Arabs. These sponges are found in the Levant within the 36th and 33d degrees of latitude; that is, between Alexandretta and Saida. It is now universally acknowledged that sponges belong to the animal kingdom, and are an aggregate of cellules built up by gelatinous polypi similar to those which construct madreporæ, porites, and other polypifers. When the sponge is first gathered at the bottom of the sea, it is covered with a black but transparent gelatinous substance, resembling vegetable granulations, among which microscopic white and oviform bodies may be distinguished. These are the larvæ destined to perpetuate the species. When arrived at maturity, they are washed out by the sea-water which incessantly flows through the sponge; they then swim along, by the aid of the vibrating cilia or hairs with which they are provided, until they reach a suitable rock, to which they attach themselves, and there commence a new life. This emigration of the larvae from the parent sponge occurs about the end of June and the beginning of July. The fine quality of sponges is chiefly found at the depth of fifteen fathoms or thereabout; the common sponge lies at depths varying between twenty and thirty fathoms. At Tripoli (on the coast of Syria, not of Africa) M. Lamiral engaged some divers, who commenced operations on the 21st of May. The sponges gathered were immediately placed in boxes, through which a stream of sea-water was constantly made to flow, the animal matter being, of course, left on them, and protected from injury. These sponges arrived at Marseilles on the 17th of June; thence they were taken to Toulon and the islands of Hyères, where stone troughs, with five sponges in each, were sunk in different places. The success of the experiment will not, of course, be known until next season.—*Phar. Jour. Lond.*, October, 1862, from *Times*, September 26th.

At a recent meeting of the Obstetrical Society of London, reported in the *Lancet*, Mr. Hicks related several cases of vaginal closure. At the conclusion of his paper, Dr. Graily Hewitt said he "wished to call the attention of the Society to an important point in the treatment of that class of cases in which there is retention of menstrual fluid within the uterus, whether from imperforate hymen, or congenital closure of the os uteri. It was the fact, that in a certain proportion of the cases in which the fluid had been evacuated from the uterus by puncture or otherwise, death had occurred a short time subsequently from escape of the menstrual fluid into the peritoneal cavity, causing severe and rapidly fatal peritonitis. It was a remarkable fact that, whereas such escape of menstrual fluid into the peritoneal cavity hardly ever occurred when these cases were left alone, yet that this should happen after operation, and when an outlet by the natural way had been prepared; but the fact was undoubted. The probable explanation of this curious circumstance was, he believed, that uterine contractions are set up consequent on the artificial opening into the uterus; that these contractions continue after the first evacuation of the fluid, and when in all probability the artificial opening had become occluded or insufficient; and that these contractions have the effect of expelling the remainder of the retained blood through the Fallopian tubes, and so into the peritoneum. In laying down rules, therefore, for the management of these cases, this source of danger should be anticipated, and if possible guarded against. Dr. Hicks had very properly guarded against the admission of air into the uterus during the operation by the procedures recommended, but the danger now alluded to was even greater. The best plan to be followed in order to avert this danger would, he believed, be to make a very small aperture in the obstructing tissue, whatever that might be, and to allow the retained menstrual fluid to escape very slowly and gradually, almost *guttatim*; in this way the excitation of strong and forcible contractions of the uterus would, he thought, be avoided."

Rose-colored Teeth.—Professor Moritz Heider, of Vienna, relates that two girls (twins), who were placed under his care, had teeth of a peculiar rose color. On the shedding of the first teeth, the permanent set also appeared of the same rose-red color, and only paled off after some years, never losing the reddish tint entirely. This appearance is difficult to account for, as no other members of the family shared the same peculiarity, nor was there any difference in the mode in which they were brought up.—*London Lancet.*

CIRCULAR TO MEDICAL DIRECTORS.—

Surgeon-General's Office, Washington, Feb. 2, 1863.

SIR.—The Surgeon General directs that your attention again be called to the numerous instances in which men are returned to duty in a condition still demanding treatment or proper for discharge.

This is an evil bringing opprobrium upon the Medical Department, and requires prompt redress. All medical officers in charge of hospitals under your direction will be instructed by you as to their duty in this connection, and such steps will be taken by you as will insure the prompt return to duty of all such soldiers as may be in a fit condition, and those only. Very respectfully, your ob't serv't,

By order of the Surgeon-General. JOS. R. SMITH,
Surgeon, U.S.A.

DR. E. M. CURTIS, of Burlington, Vt., has been appointed Assistant Surgeon of the 6th Vermont Regiment, and is detailed for duty at the United States Hospital at Burlington.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, FEBRUARY 14TH, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - -	37	29	66
Ave. mortality of corresponding weeks for ten years, 1853—1863,	35.7	37.9	73.6
Average corrected to increased population - - - -	00	00	81.14
Death of persons above 90 - - - - - - -	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
11	4	8	3	2	0	0	0

TO CORRESPONDENTS.—A Report of the Proceedings of the Berkshire District Medical Society has been received.

PAMPHLETS RECEIVED.—Significance of a Diploma: A Valedictory Address before the Graduating Class of the Berkshire Medical College, by Prof. Wm. Warren Greene.—Hints on the Treatment of Strangulated Hernia, by John O'Reilly, M.D., &c., New York.

DIED,—Jan. 26th, at the residence of his father, Dr. Worthington Hooker, New Haven, Conn., Dr. John W. Hooker, aged 29 years.

DEATHS IN BOSTON for the week ending Saturday noon, Feb. 14th, 66. Males, 37—Females, 29.—Apoplexy, 1—disease of the bowels, 1—congestion of the brain, 2—disease of the brain, 1—bronchitis, 4—consumption, 11—convulsions, 3—croup, 4—cynanche trachealis, 3—dropsy, 2—dropsy of the brain, 3—scarlet fever, 8—gastritis, 1—gangrene (senile), 1—intemperance, 1—infantile disease, 4—disease of the liver, 1—inflammation of the lungs, 3—marasmus, 2—old age, 2—paralysis, 1—pertussis, 1—peritonitis, 1—rheumatism, 1—smallpox, 2—unknown, 1—whooping cough, 1.

Under 5 years of age, 35—between 5 and 20 years, 4—between 20 and 40 years, 11—between 40 and 60 years, 9—above 60 years, 7. Born in the United States, 49—Ireland, 14—other places, 3.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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SURGICAL CASES.

Communicated to the Surgeon-General of Massachusetts by Dr. James P. Prince, Surgeon 36th Mass. Vols.

Wound of the Femur—Osteo-plastic Operation—Amputation.

Private Barrett, æt. 20, wounded at the battle of Fredericksburg, Dec. 13th, in the right leg. A ball entered at the outer condyle of the femur, and, passing inward and upward, made its exit from the middle of the lower third of the thigh, splintering the compact structure of the bone on the inner side, an inch above the point of its passage. The patient being in very good condition, it was thought to be a fair case for an osteo-plastic operation, and was operated upon, Dec. 16th, by Dr. Gouley, by an anterior flap and posterior circular incision, the patella being included in the flap. This bone was split with the saw and brought in apposition with the end of the femur, the condyles and a short piece of the shaft having been already removed; but a sufficiency of bone had not been taken away, splintering of the femur still existed, and the wound made by the passage of the ball had also been included in the flap. The operation was well borne, and the case continued to do well until the sixth day, when sloughing had commenced. On the eighth day, indications of gangrene were noticeable. On the ninth day, secondary hæmorrhage from the popliteal, requiring immediate action, commenced. The tourniquet was applied, and the patient put upon the table. After being brought under an anæsthetic, a careful examination showed the propriety of amputation. I immediately proceeded to operate, but found it necessary to go as high up as the middle third, pus having burrowed nearly to that point. But little blood was lost, and the patient very readily rallied from the anæsthesia. He was removed to Washington on the same day. I saw him, on the day of his arrival in that city, about twenty-four hours after the operation. There was no unusual prostration, and the case presented every appearance of doing comparatively well. Sloughing had not continued long enough to produce constitutional depression of a dangerous character, and the gangrene was simply incipient at the time of secondary amputation. Upon examination, immediately after amputation, not any plastic lymph could be found deposited on the cut surfaces of bone. The femur was in a condition for necrosis up to the point of splintering. The patella was, of course, unable, of itself, to maintain life, so much of its source of nutrition having been cut off by the splitting; unquestionably no lymph could have been thrown out from that bone, and consequently the most favorable condition of the femur was necessary for the success of the operation.

Wound in the Popliteal Space—Secondary Hæmorrhage—Amputation.

Augustus Kitchen, wounded December 13th, at the battle of Fredericksburg, a musket ball passing through the popliteal space, from within outwards. Upon examination, no injury of the bone or popliteal artery was discovered; motion of the limb was not impaired more than usually occurs in ordinary flesh wounds of the same extent. The patient continued to do well, and the wound presented every appearance of healing by granulation. Appetite good, pulse very nearly normal, and no hæmorrhage until Saturday, Dec. 20th, at 11, P.M., when violent hæmorrhage commenced from the inner orifice of the wound. This was consequent upon the patient having slightly extended his leg. The tourniquet was applied to the femoral, and a careful examination showed the bleeding to be from the popliteal alone. I immediately placed a ligature on the femoral at the angle formed by the sartorius and adductor magnus muscles. Upon removing the pressure above, the hæmorrhage was found to be entirely controlled; simple dressing was re-applied, and the leg was kept in a slightly flexed position. Nothing unfavorable occurred until at the expiration of thirty hours, when attention was called to slight oozing of arterial blood from the inner orifice of the wound. Pledgets of lint, soaked in a solution of persulphate of iron, were introduced, and, for the time, they arrested the hæmorrhage. Upon the removal of the outer dressing, some eight hours afterwards, arterial hæmorrhage re-commenced a little more freely. Fresh pieces of lint, saturated with the same solution, were introduced, but they did not entirely prevent a slight oozing. This continued to increase, notwithstanding the constant use of styptics and moderate pressure of the iliac. The patient became weak and the pulse fluctuating, sometimes being scarcely perceptible at the radial.

By some medical officers present and myself, it was thought unadvisable to operate, as the man would almost certainly die on the table. (This was on Tuesday, Dec. 23d.) It was, however, decided by Dr. Dougherty, Medical Director Right Grand Division, and Dr. O'Connell, Medical Director 9th Army Corps, to give the patient the benefit of an imaginary chance by operation, as he most assuredly would die without it. (The ligating of the iliac had been previously considered, but the condition of the limb precluded the possibility of success.) He was put on the table, and the anæsthetic was carefully administered by Dr. John E. McDonald. The condition of the man was such that it became necessaay to stop the inhalation several times before he succumbed to its influence.

Upon examination, it was thought advisable to amputate at the *upper part of the lower third* of the femur, pus having burrowed nearly to this point and by the side of the *popliteal*, leaving the coats of that artery in a doubtful state. Amputation was accordingly performed as expeditiously as possible (time occupied, one minute and twenty seconds). So successfully was the bleeding controlled by pressure with the fingers, that certainly the patient did not lose more than one ounce of blood during the operation. It was with great difficulty, and the constant use of stimulants and fanning, that he was rallied from the anæsthetic, after lying in a comatose state for an hour. Vomiting next ensued, and he was unable to retain a tableblespoonful of fluid; half a drop of creasote was given after three hours, which controlled the emesis. He then continued to improve under brandy and beef-tea, and on Thursday, Dec. 25th, the day on which he was removed to Washington, his condition was very nearly as good as when the hæmorrhage first began. He bore the journey to General Hospital well, and when I left him in Washington, on Friday, Dec. 26th, suppuration had commenced, and the case promised to do as well as any of my primary amputations.

Examination of the removed limb revealed the following state. The ball, in its passage, had denuded the bone of its periosteum and grazed the popliteal, inflicting sufficient injury to the coats of that vessel to destroy vitality; suppuration intervening, by which the artery was entered. The hæmorrhage, occurring after the ligating of the femoral, came from branches of the profunda, they having been injured in the same manner as the popliteal, and, no doubt, sooner ruptured, than they otherwise would have been, by the increase of the arterial column, consequent upon the ligating of the femoral. A small portion of the ball was found impacted in the bone at the point where it was denuded, but so smoothly that it could not be felt by the finger or probe at previous examinations.

The specimen has been sent to Dr. Brinton, in Washington, for preservation.

PRACTICAL OBSERVATIONS ON, AND THE TREATMENT OF DIPHTHERIA, WITH ILLUSTRATIVE CASES.

By E. N. Chapman, M.D., Prof. of Therapeutics, Materia Medica, &c.

[Communicated for the Boston Medical and Surgical Journal.—Continued from page 61.]

Cases XXIII. and XXIV.—A year last spring two cases of Diphtheria of much interest were treated in the Out-Door Department of the

Hospital. It was stated that four others occurred at the same time in the house where this family resided; all of which, affected in a similar manner, died. These two children, 3½ and 6 years old respectively, had, markedly, depraved constitutions, and little vital stamina. They had been complaining three or four days before presenting themselves, and now the entire fauces were covered with a fœtid, bloody exudation; a dark, grumous blood distilled in drops whenever they were touched; swallowing was impeded, but not remarkably troublesome; a bloody mucus was discharged from the nose; and a swelling at the angle of the jaws, and knotted, enlarged glands were seen externally. The children, pale, badly nourished and much prostrated, had a quick, irritable and rapid pulse.

The treatment employed in the above cases was put in force; yet, from the disintegrated state of the blood, convalescence was very tedious, and the membrane did not entirely disappear before the end of the fourth week. Points on the tonsils had an ulcerated appearance, and a most disgusting fœtor was exhaled with the breath. Notwithstanding the brandy and quinine were given in larger doses than ordinary, and the free use of animal broths, the nervous and muscular weakness and prostration were greater than at the outset; and, on the disappearance of the membrane, ascites and anasarca showed themselves. The dropsy was treated by a continuation of the same remedies; and, gradually, as digestion, assimilation and nutrition were reëstablished, the water disappeared. Eventually, after a treatment of six weeks, both children were cured, and, to our knowledge, have not relapsed. It should be mentioned, that the muriated tincture of iron was given in place of the quinine for a portion of the time during convalescence.

Cases XXV. and XXVI.—In February, Dr. M. invited me to see an infant, 16 months old, in a family, in which a child the day previous had died after an illness of thirty-six hours. This child was nearly three years of age, and, laboring under symptoms like to those now shown by the infant, died with marked evidences of blood-poisoning; although no membrane could be detected in the throat, and none, as was evident from the respiration, obstructed the air-passages. I found that the infant, only taken sick the day previous, was in a state of collapse, and had the symptoms of impending dissolution—a feeble, uncertain pulse, moaning, restlessness, jactitation, and a livid, blue color of the surface;—yet, as in the other case, there was no evidence of the existence of a membrane, since none could be seen, and inspiration was not impeded. The child died during the night. Unfortunately, in neither case could an autopsy be obtained.

Case XXVII.—The parents had one other child, a boy 6 years of age, who, for a week, suffering from a croupy cough, loss of voice and stridulous inspiration, was now, frequently, seized with suffocative paroxysms of great severity. He had been treated with antimony and ipecac, in nauseating and emetic doses. I suggested the administration of brandy and quinine, and in a week the lad was well, excepting a slight bronchitis that soon disappeared.

My conclusion is, that these three children had the Diphtheria, that the two younger died from the poisoned state of the blood before the membrane showed itself; and that the recovery of the elder by the above remedies, shows not only the nature of his disease but that of the others.

CASES XXVIII. to XXXIV.—Within the last six months seven other cases of Diphtheria invading the larynx have fallen under my notice. One of these, a boy between 6 and 7 years of age, operated upon by my colleague Dr. Gilfillan, eventually recovered under the use of quinine and stimulants. Of the other six, under medical treatment alone, one failed too rapidly for any treatment to be of much avail; but the others, two of whom recovered, gave to this plan of treatment a fair trial.

CASE XXXV.—In August last, Mrs. R., 40 years of age, of a delicate constitution, was attacked with a swelling of several of the large joints simultaneously. There was great debility, a high fever, and a very rapid pulse. Under the use of colchicum, this seemingly arthritic rheumatism disappeared in three days; when, on the following morning, patches, appearing to be membranous, were discovered on the inside of the cheeks and on the tongue. Eventually these patches were developed into a membrane, which, covering the mouth, extended into the fauces. This membrane fell in seven days and was not renewed; upon which the swelling of the joints returned as severely as at first. In addition, there were severe neuralgic pains shooting down the main nervous trunks, and a profuse, drenching perspiration. As, in ten or twelve days, the rheumatism was got the better of, the want of muscular power was very observable; from this condition, however, she rapidly recovered, and has since continued in the enjoyment of good health. The treatment consisted, on the appearance of Diphtheria, of brandy and quinine; but after the first three days the stimulant was alone given, excepting when the membrane had about disappeared I gave her for 24 hours the tartrate of potassa and soda, which renewed the membrane in the mouth and made the patient worse.

CASE XXXVI.—Mrs C., æt. 30, spare, anæmic and greatly debilitated from nursing, was taken with the Diphtheria Jan. 1st, 1863. On the evening of the 4th, one tonsil, which had suppurated, discharged a large amount of pus. The following day there was paralysis of all her limbs, which were racked with violent neuralgic pain, shooting down the main nervous trunks. In several places on her arms and legs erythematic spots appeared, but did not remain more than thirty-six hours. On the 6th, the right arm and left leg were free of pain and could be moved in all directions; but as yet the power in the muscles was feeble. On the 7th a like change, in her left arm and right leg, took place suddenly; an impression came over her that she could move them, and instantly the muscles obeyed her will. On the next day the patient could stand; on the second could walk, from which time recovery was rapid. She took from the first the following prescription. ℞. Cinchoniæ sulph., gr. xxv.; acidi sulph. a., q. s.; aquæ font., f ℥ iij. M. S. A teaspoonful every second hour, with half an ounce of whiskey. On the 8th the cinchonia was omitted, but the stimulant was continued in the same dose every third hour.

Case XXXVII.—In July last, a soldier from Gen. McClellan's Army of the Peninsula was, with 123 others, admitted into the hospital. He had been sick for some weeks with the typhoid fever, from which having recovered, he now suffered from debility and a depraved condition of the blood. In the first week of August he was attacked with the Diphtheria; and, in six days, under the use of cinchona and whiskey in doses similar to the last case, the engorgement of the throat abated, the membrane began to fall, and convalescence was commencing; when, on my leaving the city for ten days, this treatment was interrupted, and one by the chlorate of potash substituted. The diphtheritic symptoms gradually resumed their former severity; and, the second day before my return, he drank at a draught half a pint of a solution containing two drachms of the potash, which was designed to be used in the twenty-four hours. The next morning gastric symptoms showed themselves, which, when I saw the man, indicated violent gastritis—hardness, tenseness and acute tenderness over the stomach, and a rejection of all food or medicine. The matters vomited consisted of ropy mucus, streaked, at times, with blood. The fauces were in the same condition as in the beginning, but there was much greater difficulty in swallowing.

It was more than two weeks before the inflammation of the stomach was subdued; and then the paralysis of the fauces, which had gradually been getting more decided, was almost complete, rendering the swallowing, more especially of fluids, nearly impracticable. In a few days there was a loss of taste and smell, and directly, in the face and upper portion of the chest, a want of feeling which gradually crept down the trunk and arms, and was followed by a lessened power in the muscles. Taste, smell and the power of swallowing were much improved in a couple of weeks, when the arms became powerless and the same numbness passed down to the lower parts of the body. In a short period all the extremities, with the spinal muscles, were paralyzed, rendering him perfectly helpless. A severe pain in the right ear was followed by total deafness on that side. His sight became imperfect—all objects were indistinct and surrounded by a haze, and small ones, intently looked at for a moment, were blurred and run together. He was presbyopic, as was shown by his ability to tell large letters held far from him, which he could not make out at the ordinary distance. Such was his condition in the middle of October. By the 1st of November he had regained the special senses in perfection, and also the power in the spinal muscles and those of the arm, but not of the forearm. Now for a month his condition remained without improvement, though nutrients, cinchonia and whiskey, which had been constantly given since there was an ability to swallow, were still assiduously administered. Now all medicine except the pyrophosphate of iron was omitted, and this was used in four-grain doses three times a day. It had the most happy and prompt effect—the power of motion returning in the parts first paralyzed, and last of all in the toes. When he began to sit up, which was before there was any improvement in the legs, there was great muscular weakness observed in the heart, rendering the recumbent posture necessary as a matter of prudence. When he had recovered sufficiently to stand, this feebleness of the heart's action was overcome. In four weeks after commencing the use of the pyrophosphate of iron he was able to walk when supported, in five could do so without assistance, and in six the recovery from paralysis was complete.

[To be continued.]

CASES OF THORACIC EFFUSION RELIEVED BY THORACENTESIS.

By William Warren Greene, M.D.

[Communicated for the Boston Medical and Surgical Journal.—Concluded from page 55.]

Case III.—Martha Berry, of Gray, Maine, aged 10 years, was attacked with typhoid fever in the early part of July, 1861. At the end of three weeks she was convalescent. In the fourth week, however, she had a slight attack of pleurisy. I saw her twice at this time, finding her, at the last visit, relieved, with no signs of effusion. I was now attacked with fever myself, which confined me till the middle of September. During this time Dr. Anderson, of Gray, saw her several times.

Sept. 27th, her father requested me to see her, saying she "seemed to have a slow fever." I found her very much emaciated, with hectic fever, hurried, oppressed breathing, harassing cough, with no expectoration. Left side motionless in respiration, enlarged two inches; intercostal spaces bulging, and yielding perfectly flat percussion sounds everywhere except over the clavicle. Heart displaced to right side. No respiratory sound, except just under clavicle a slight blowing, and it was doubtful whether this was not transmitted from the right side.

On the 30th of September, with the assistance of students Frothingham and Collins, I opened the chest and evacuated a quart of *creamy* pus. As the lung had now expanded and chest contracted all it was inclined to do, I closed the opening, promising to repeat the operation in a few days. She was greatly relieved. On visiting her the fourth day after the operation, for the purpose of repeating it, I was informed that, twenty-four hours before, the wound opened, and had been discharging profusely ever since. On examination, I found pus of the same quality issuing from the wound, and occasionally *air entering* the wound upon inspiration.

Oct. 10th, the lung had expanded to nearly two thirds of its volume; the heart occupied nearly its natural position, and the wound still discharging; cough less, expectoration none; breathed easy; slept well; no chills nor sweats; appetite good; strength rapidly improving. She now moved out of town, and I lost sight of her till, in August, 1862, the family came back to town. Unaware of the fact, as I was riding past the house, a plump little girl came towards my carriage, as if to speak. I stopped, but did not recognize her, when, looking very much surprised, she said, "Why Doctor, don't you know me? I am the little girl you tapped." And so she was, looking the picture of health. She is perfectly well. No cough, pain or soreness. Lung acts very well, although the chest is somewhat shrunken, crippling the organ a little at its base. Heart in proper position.

Case IV.—Jan. 14th, 1862, was called to see Geo. Whitman, of New Gloucester, Me. In June previous he had submitted to an operation for the removal of an encephaloid testicle, from which he rallied very well, and was able to attend to his business until October, when he began to lose strength, and noticed small tumors in the folds of the nates and groin, which had steadily increased in size, with but little pain or tenderness.

In November, he began to have some difficulty in breathing, attended with an unavailing cough. I found him, emaciated and weak, yet able to walk about the room, but suffering extremely from dyspnœa, and an "indescribable distress" through the chest. He had not been able to lie down but a few moments at a time for many days, and could not sleep at all in the recumbent posture. The cough was not very severe; no expectoration.

He said that he had suffered from "pleurisy fever" twice in his life, the last time many years since; did not remember how many. Did not know whether, at the time, there was any effusion, or whether, since, there had been any shrinking of either side. In fact, did not know *certainly* which side was affected, but was very sure that it was the left side, both times.

I found the left side of the chest measuring a trifle more than the right, certainly not more than one fourth of an inch; respiratory movement almost abolished; no bulging of intercostal spaces. The upper part of the chest yielded the normal vesicular resonance on percussion. From the third rib downward, however, this resonance *gradually* diminished, and at the lower part of the chest gave place to perfect flatness. *Change of position produced no change in the* *line of dulness.* No vocal fremitus. Over the resonant portion of the lung the respiratory murmur was tolerably distinct; below this, no sound whatever. No bronchophony. No heart-sounds in their proper place, but distinct, as was its impulse, on the right side of the sternum.

He said he had sent for me for two reasons. First, for the removal of the tumors, if I thought proper, as they were now rapidly increasing in size, becoming very painful, and interfering with the movements of the limbs, and also, as he thought, with the action of the bowels and bladder;—this was explained by a rectal examination, which disclosed the same disease involving the rectum as far as the finger could reach—second, to relieve, if possible, the thoracic distress, so that he might lie down and rest.

I of course advised him of the futility of any operative interference with the morbid growths, and suggested the presence of liquid in the left pleural cavity as explaining *principally* his suffering in this region, and the propriety of giving it exit.

The diagnosis surprised the patient and his friends very much, as the physician previously in attendance, dismissed before I was called, had repeatedly examined the side without coming to any such conclusion; and, as he had quite a dread of being "tapped," I did not press the matter, but at his request gave him "a day or two to think of it." In the mean time some of the friends consulted the former physician about the matter, and he told them emphatically that I was entirely mistaken in diagnosis, and that opening the chest was perfectly unwarrantable, &c.

I may here state, parenthetically, that an uncle of the patient had, as proved by an autopsy, complete transposition of all the viscera, a fact which made the friends, more nervous, they thinking that this might be a parallel case, and thus the position of the heart be explained.

Finding, at my next visit, the family in an unsettled state, although consenting to the operation, I requested my friend, Dr. Tewksbury, of Portland, to see the case with me. He fully concurred in my opinion, and I accordingly, with the assistance of Dr. T., performed thoracentesis and evacuated two quarts of bloody serum. During the operation the heart moved back to its natural position, the thoracic wall collapsed considerably, accompanied with an apparent slight expansion of the lung. He was completely relieved by the operation of all chest symptoms, except slight cough; could lie in any position and sleep quietly. Nor was there any return of these symptoms before his death, which occurred some weeks after, in consequence of the intra-pelvic disease. No cancer-cells could be detected in the removed fluid by the microscope. No autopsy was obtained.

I have selected the above cases for publication, from the conviction that each presented points of unusual interest, either pathological, diagnostic or therapeutic, which will suggest themselves to the reader.

I cannot but feel that the profession, as a whole, are not sufficiently alive to the importance of *early* operative interference in these cases; that many lungs are ruined and lives lost by unwarrantable tampering with medication, that would be easily saved by an operation long ago demonstrated to be feasible and safe.

My rule is, whenever a case of pleuritic effusion does not yield readily and *rapidly* to medical treatment, operate. In operating many times I have never had any cause for regret, except, in some cases, that it was not done earlier. I have never seen any *shock* from the operation. In a little boy of 8 years, I some years since removed seventy ounces of serum from his right pleural cavity in the morning, and in the afternoon he was walking about the room. In another, 6 years old—a little boy in Poland, Me., whom Dr. Roberts, of Bangor, saw with me—from whose right chest I drew twelve ounces of pus, afterward injecting, first, warm water and withdrawing it, then dilute tincture of iodine, the little fellow sat up in bed immediately after, called for his playthings, and used them with more zest than before the operation. Therefore the severity of the procedure is no excuse for its omission or delay.

The instrument which I use, by preference, is Dr. Morrill Wyman's. Especially is it to be preferred when desirable to inject the cavity or to prevent all ingress of air. From this latter accident, however, I have never seen any apparent harm; yet in simple serous effusion I should be anxious to avoid it.

In a case upon which I operated nearly three years ago for Dr. James Webb, of Bridgeton, Me., I removed from the right pleural cavity of a man a gallon of serum with a simple exploring trocar, not being apprised of the nature of the case when called, and so not having the proper instrument with me. In this case air entered the chest several times during the latter part of the operation. The lung, however, expanded well, and just before withdrawing the canula I stopped it with my finger during inspiration, opening it during expiration, and thus in a few respirations the air was expelled. The opening was, of course, valvular. The case made a fine recovery.

Pittsfield, Mass., January 15th, 1863.

MICHIGAN ASYLUM FOR THE INSANE.—We learn from the biennial report of the board of trustees for 1861–62, that at the date of the previous report, there remained in the institution 109 patients; 187 have since been admitted, making the total number treated during the biennial period, 296. Of this number 63 were discharged *recovered*, 25 left the Asylum more or less *improved*, several sufficiently so to resume their accustomed duties; 26 were returned to their friends or were removed by the county authorities *unimproved*—a large proportion, in order to make room for more recent and urgent cases; 27 have *died*, and 157 remain under treatment.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BERKSHIRE DISTRICT MEDICAL SOCIETY.

BY FRANK A. CADY, M.D., SECRETARY.

The last monthly meeting of the Berkshire District Medical Society was held in the Chemical Hall of the Medical College, Jan. 28th, 1863. Present—Drs. H. H. Childs, Jennings, Smith, Miller, Allen, Greene, Holcombe, Lucas, Drown, Holmes, Ransom, Pratt, Bostwick and Cady. The President, Dr. Jennings, in the chair.

The record of the previous meeting was read and accepted.

The report of cases being called for, Dr. Holcombe, of Lee, described a case of pneumonia, which passed through the usual stages, presenting all the ordinary physical and rational signs, except that neither cough nor expectoration appeared during the whole course of the disease. The patient recovered, but the convalescence was much slower than is usual in this disease. Dr. H. also reported a case of typhoid fever (in a young woman) in which, during the first two weeks, the symptoms were not unlike those ordinarily present in the disease, and with the pulse at no time exceeding 110 per minute. At the expiration of that time she was suddenly attacked with severe pain in the region of the ileo-cæcal valve, which it required large doses of opium to subdue. After the subsidence of the pain, no symptoms of unusual intensity appeared until the thirtieth day, when she had all the well-marked evidences of perforation—agonizing pain, beginning in the right iliac fossæ and extending over the whole abdomen ; pinched features, quick and feeble pulse, exquisite tenderness on pressure, tympanites, thighs flexed on abdomen, nausea and vomiting, cold extremities, with great prostration of the vital powers. Under the administration of stimulants in large quantities, and continued hot applications to the surface, the patient rallied. The collapse returned every twenty-four hours for six successive days, in the last of which the patient died. Dr. H. thought it very unusual for a patient to survive so long after the unmistakable evidences of perforation.

Dr. Cady remarked, that in the few cases of intestinal perforation observed by himself, when the contents of the bowels had escaped into the peritoneal cavity, death had ensued, *generally* within forty-eight, and *always* within sixty hours, after the first evidence of perforation had appeared.

Dr. A. M. Smith reported several cases of illness which had occurred in the family of Mr. Wm. Noble, peculiar, not only in the symptoms presented, but also in the number of persons attacked and the persistency with which the disease, in each case, resisted treatment. The first was that of a young lady, who was taken with what appeared to be bilious derangement—sallowness of skin and yellow sclerotic. The tongue was buffy in the centre and red upon the edges ; bowels constipated ; slight tenderness over the epigastrium and right hypochondrium. Vomiting occurred on the second day and continued several days, but was after a time relieved by small doses of creasote—the other symptoms by alteratives. Several members of the family were attacked in nearly the same manner, and were relieved by treatment not unlike that pursued in the first case. Mr. N. was more ill than any of the others. For six weeks he was unable to retain any food in the stomach, and was supported by injections of broth. Several persons who came to the house to take care of the sick were, after a time, attacked in the same way, and only recovered after returning to their own homes. The vomiting, in all these cases, was more uniformly relieved by small doses of creasote than by any other remedy. The number of persons thus affected (10) in this house indicated some local poison. The cellar was wet, and contained decaying vegetable matter. Paper, found by analysis to contain arsenic, covered several walls in the house. Dr. S. was not certain that the real cause of the trouble had yet been ascertained.

Dr. Childs referred to a case not unlike those reported by Dr. S., which occurred in the west part of the town several years ago, when many members of the family died, and he was obliged to remove the surviving patients before any improvement took place in them.

Dr. Greene presented a multilocular tumor of the ovary, with the following history. The patient, 24 years of age, unmarried, had complete suppression of the menses from Sept. 12th, 1859, till Dec. 17th following, when she had severe menorrhagia, lasting several days. Thenceforward she menstruated at irregular intervals, varying from two to ten weeks, until October, 1861, between which date and Feb. 20th, 1862, she had again complete suppression. Up to this time there was no disturbance of health. She attended as usual to her business, that of a milliner. She now (Feb. 20th, 1862) began to have a moderate discharge of blood from the vagina, which continued without interruption, and with but slight variation in amount, until June 9th. About the 1st of March she noticed "some bloating up of the bowels," which gradually increased until the 1st of April, when she consulted Dr. Tewksbury, of Portland, Me. Owing to her reluctance, however, no local examination was made till about the middle of May, when Drs. Tewksbury and Wood, of Portland, examined her repeatedly and thoroughly. They decided that there was some abnormal growth in the abdomen, the character of which was so masked by ascitic effusion as to render it doubtful whether it was ovarian or uterine—Dr. T. inclining to the former, and Dr. W. to the latter opinion. Finding her strength failing, she left her work, but insisted that she felt perfectly well, with the exception of a sensation of weight in the abdomen. The first of June she rode twenty miles in a carriage, and two days after Dr. G. saw her, and found her with symptoms of acute peritonitis. These readily yielded to opium, but the abdominal distension increased to such a degree as to demand paracentesis, which Dr. G. performed on the fifth day, evacuating two gallons of highly albuminous fluid. The tumor now pressed upon the canula, so that no more could be withdrawn, although much still remained. She was much relieved by the operation. An examination of the abdomen at this time revealed a firm mass, of regular outline to the touch, somewhat movable, a little to the right of the median line, over which the abdominal walls glided freely. It could not be reached *per vaginam.* The uterus was normal in its measurements, feel and position, except being slightly elevated, and floated a little on the sound, without imparting any apparent motion to the tumor. The speculum gave no light upon the origin of the sanguinolent discharge, except that it was intra-uterine; os, perfectly healthy. The next day (June 12th) she was very comfortable, and anxious for an operation for the removal of the tumor, which was promised her after she rallied a little. She was shortly attacked with acute pain, tympanites, vomiting, &c., sunk, and died in twenty-four hours.

Autopsy, twenty-four hours *post mortem*, revealed a multilocular tumor of the right ovary, one cyst of which had ruptured, discharging its contents into the peritoneal cavity. Its pedicle was the broad ligament simply, having no adhesions, although elsewhere the peritoneum was coated with an abundant exudation of recent lymph, which had agglutinated the other viscera together. The contents of the tumor was a thick fluid, resembling precisely the white of an egg. Weight of tumor, when emptied of its contents, 5½ pounds. Peritoneal cavity contained ten quarts of fluid, similar to that obtained by tapping. *Uterus and left ovary perfectly healthy.* Dr. Greene remarked that the peculiar points of interest were, the persistent uterine hæmorrhage, till within a very few days of death, with no uterine disease, the early rupture of the cyst, in a case of this character, and the entire absence of adhesions of the tumor after repeated attacks of peritonitis.

Dr. Greene also reported a case of cataract in a person 74 years of age, in which, in one eye, the cataract was hard and relieved by couching; and in the other was soft and removed by solution. Dr. G. also reported a case of necrosis of the inferior maxilla, in which there had been no acute symptoms; also a case of coxalgia, which had been greatly relieved by the application of a splint, which removed the pressure of the head of the bone in the socket.

[To be concluded.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, FEBRUARY 26, 1863.

Hearing before the Agricultural Committee of the Legislature upon the Adulteration of Milk.—Next to good water there is no article of daily consumption of more importance to a community than a sufficient supply of pure milk. It is equally a luxury and a necessity, for containing, as it alone does, in a fluid form all the elements essential to the daily wants of the human system, it not only enters into the composition of a large proportion of the dishes which form our daily food, but at certain stages of life and in some diseases, both of infancy and adult age, it is the only means, in fact, of continuing individual existence. With its rich golden *oil*, its *sugar*, sweet but not insipid, its casein stored with *nitrogen* for the tissues, its *salts* so carefully selected for our bony frames, and its water of dilution so necessary for the catalytic processes of life, it comes to us all ready to supply strength to the starved blood, and to circulate unaided and almost unchanged within us at times when our organs are either too newly formed and tender, or else too tired or too much abused to undertake the task of extracting from crude materials sufficient supplies of the above indispensable elements for the continuance of life. To many a poor child living through the summer heats in the city haunts of cholera infantum it brings, as it were, the essence of sweet meadows and breezy pastures, so full of new life to such little patients. The rich may have it pure in town, or go to seek it in the country; but to the poor both are alike impossible, and hence many women become mothers only to see their half-nourished offspring struggle through a few months of a miserable existence, to die at last merely from the want of an abundant diet of pure milk. During the past two summers more than 500 children have died of cholera infantum in this city, nearly all of whom, under more favorable circumstances of residence and food, might have been saved to the community. How often is the physician's advice to the poor mother to wean her infant met by the question, "how can I be sure of getting good milk for it?" Without this supply the child cannot be reared, and yet, we are sorry to be obliged to say it, the chances are against her obtaining it from the sources to which she will apply, considering the numerous hands through which it passes on its way from the country to the consumer. First, the cow, in whom at least there is no deceit, gives down her unadulterated, fragrant secretion to the milkmaid's (too often, in these days, of the masculine sex) fingers, then the farmer sells it to the collector, who delivers it to the milk agent, who brings it upon the milk train to Boston, of whom the milkman, buying a certain number of cans, sells in turn from his wagon to the retail dealer, to whom, finally, our poor Irish wife resorts for her daily pint. There are, as we shall see, more direct channels than this, but they do not flow through her section of the city. Until all men learn to become honest, it is apparent then that water, so long as it remains at its present remunerative price, may gain access to the cans, even more than once, before it finally reaches the consumer, and until that time it becomes necessary for the law to protect the sick and the ignorant, both against mercenary thoughtlessness and reckless depravity.

It is with much pleasure, then, that we see that the Agricultural Committee of the Legislature is about to reconsider the present State law, for the purpose of making it, if possible, more stringent. We are confident that much good may be accomplished by such a movement, especially as it is the farmers who in this case seek protection and redress. Our experience before legislative committees within the past few years has unfortunately taught us not to hope for much sympathetic action from the country members, either in educational or hygienic matters in which the city has a strong interest, and accordingly we are rejoiced to see that it is the country which feels itself the sufferer in this instance, and in its tenderest part, for every gallon of water sold as milk diminishes the demand for the real article just to the same extent. There is some chance for the success of humanitarian projects if they only coincide with strong monied interests, and the legislature will not close its ears to the petitions of hygiene and science, if they are borne upwards by the demands of so powerful a cliency as the agricultural. Poor Bridget cannot fail of obtaining some protection against knavery, if the same system of fraud robs also stout Farmer Dairyman.

The following is the present law of the Commonwealth, and the city ordinance, concerning the adulteration of milk.

Be it enacted, &c., as follows:

SECTION 148. The Mayor and Aldermen of cities shall, and the Selectmen of towns may, annually appoint one or more persons, to be Inspectors of Milk, for their respective places, who shall, before entering upon the duties of their offices, be sworn. Each Inspector shall give notice of his appointment by publishing the same two weeks in a newspaper published in his city or town, or if no newspaper is published therein, by posting up such notice in two or more public places in such town.

Sect. 149. The Inspectors shall keep an office and books for the purpose of recording the names and places of business of all persons engaged in the sale of milk within their limits. They may enter any place where milk is stored or kept for sale, and all carriages used for the conveyance of milk; and whenever they have reason to believe any milk found therein is adulterated, they shall take specimens thereof and cause the same to be analyzed, or otherwise satisfactorily tested, the result of which they shall preserve as evidence, and shall prosecute for all violations of the provisions of Section one hundred and fifty-one. They shall receive such compensation as the Mayor and Aldermen or Selectmen determine.

Sect. 150. All measures, cans, or other vessels used in the sale, or buying at wholesale, of milk, shall be annually sealed by the Sealer of Weights and Measures, by Wine measure; and all cans so used shall be marked by the Sealer with figures showing the quantity which they hold.

Sect. 151. Whoever neglects to cause his name and place of business to be recorded in the Inspector's books, and his name legibly placed upon all carriages used by him in the conveyance of milk, before engaging in the sale thereof, and whoever sells, or buys at wholesale, milk by any other measures, cans, or vessels than those sealed as before provided, or adulterates, by water or otherwise, milk to be sold in this State, or, being recorded in the books of the Inspector as a dealer in milk, conveys from place to place, or knowingly sells or causes to be sold adulterated or unwholesome milk, shall forfeit twenty dollars for each offence. And whoever offers for sale milk produced from cows fed upon the refuse of breweries or distilleries, or any substance deleterious to the quality of the milk, shall forfeit twenty-five dollars for the first, and fifty dollars for every subsequent offence.

AN ORDINANCE CONCERNING INSPECTION OF MILK.

Be it ordained by the Aldermen and Common Council of the City of Boston in City Council assembled.

Section 1. The Mayor and Aldermen shall, upon the passage of this ordinance, and thereafterwards annually on the first Monday of January, or within sixty days thereafter, or whenever the office shall be vacant, appoint an Inspector of Milk, who shall be removable at the pleasure of the Mayor, be sworn to the faithful performance of his duty, receive such compensation for his services, in addition to the fines and forfeitures which he shall collect, as the City Council shall determine, and hold his office until another shall be appointed in his place, unless sooner removed as aforesaid.

Sect. 2. It shall be the duty of the said Inspector to give notice of his appointment in the newspapers selected for the city advertising, and to request therein all persons selling milk within the city to conform to all the requirements of the law and of this ordinance; and to invite all persons knowing of violations of the laws relating to the sale of milk to report the same to him; to prosecute before the proper tribunal all such violations as shall come to his knowledge; and to keep proper books of account and record of all matters pertaining to his office, which said books shall always be open to the inspection of the Mayor and each of the Aldermen, and shall be transmitted to his successor in office.

In Board of Aldermen, June 7, 1859.
Passed.
Sent down for concurrence. Silas Peirce, *Chairman.*
In Common Council, June 9, 1859.
Concurred. J. P. Bradlee, *President.*
Approved, June 22, 1859. F. W. Lincoln, *Mayor.*

Let us see now what have been the practical results of a law apparently so well adapted to protect the public.

Section 148. In accordance with this clause our city appointed an Inspector of Milk in 1859, but, so far as we can learn, with one or two exceptions this was the only appointment made in the State, and in Boston alone has there been any persistent and faithful attempt made to carry into effect the spirit of the law. Since that time there have been entered in the Police Court, upon complaint of this officer, nearly one hundred prosecutions of parties breaking this law in some of its parts, by far the greater number of whom, although clearly guilty, have escaped punishment. This has been owing chiefly to the fact that the police magistrates have decided that several portions of Section 151 are unconstitutional, or in some way improper, and have accordingly let the guilty off unpunished. We do not think it advisable to make public, even in a professional journal, all the weak points of the statute, so long as it is the only one, however powerless, to protect the community against the wholesale adulteration practised in this city, but we will state some of the difficulties against which the prosecuting officer has to contend.

Section 151 states that any one who "conveys from place to place," &c., shall forfeit $20 for each offence. What more easy then than for the Inspector to take a can from a suspected cart, have it analyzed, and, if found adulterated, to get a conviction at once? That would appear to be justice certainly. Not so, however. The judge, who does not hesitate to sentence thirty poor devils off hand in an hour to the various places of criminal confinement on the mere statement of a policeman, or even without such testimony, rules that the clause is in opposition to the liberty of the people, that a man may carry water, swill, arsenic, or any other poison he chooses in a milk-can or milk-cart, and nobody has a right to interfere with him. "Complaint and accused discharged." The Inspector then says, it is evident I can convict this fellow only by taking a specimen of the milk from some house where he has left it. Accordingly he goes to some private house, takes a specimen of the milk, or has it voluntarily brought to him by the father of the family, has it analyzed, finds it half water, and enters a complaint before the police criminal court. The case comes to trial, the gentleman is summoned as a witness. "Do you buy milk of the accused?" "I do." "Did he leave the specimen in question at your house?" "He did." "How do you know this?" "Why the cook says he did." "Did he leave it in a can?" "No; it was turned into a vessel." "Can you swear there was no water in that vessel at the time, and that none was added afterwards?" "No." "Case discharged." The next time the Inspector has the cook summoned also. "Cook, did you receive the specimen from the accused in person?" "No, sir, he always leaves the can outside the door before I get up." "Can you prove that no one came along and turned water into that can while there?" "No, sir." "Case discharged." It is evident, then, that no private gentleman can obtain redress without bringing his whole family into the Police Court, and that the Inspector must seek other kind of testimony, if he is anxious to obtain a conviction. He accordingly traces this privileged and well-protected character to some retail dealer, to whom he sells daily several cans of "half and half." The shop-keeper complains that the milk is bad. A specimen is taken, analyzed by a chemist, and found to be adulterated 50 per cent. with water. The parties are summoned to appear. The chemist testifies to the bad character of the milk. The shop-keeper is asked, "Do you buy milk of the accused?"

"Yes." "Did you on this day?" "Yes." "Do you buy milk of anybody else?" "I do at times." "Did you on the day in question?" "I did not, my boy was in the shop; the cans are left upon the door-step outside." "Were any more cans left that day than were marked upon the milk card of the accused?" "No." The boy is called: "couldn't swear that some other milk-man might not have left milk that day, but didn't see any." "Complaint not sustained."

Is it strange, then, that out of 48 prosecutions for the sale of adulterated milk since 1859, the Inspector has succeeded in gaining only 16 convictions, a portion of which were "pleaded guilty" without a trial? There can be no question, then, about the necessity of reform; but we hope that the Committee having the matter in charge will see that the measures they adopt, however stringent, first receive the sanction of the judges, before recommending them to the law-makers of the General Court. The only limit to the severity of the statutes should be the possibility of enforcing them. If it is unconstitutional or illegal to prosecute a milk-man for carrying poisoned milk in his cart, the community has certainly a right to insist that the city shall refuse a license to such a person. The law should, moreover, enforce a registration every year, for milk routes are constantly changing hands, and a milkman may under the present law leave and re-enter the business half a dozen times without giving any notice of such change. Neither should it be necessary for the Inspector to prove that the party accused sold adulterated milk *knowingly*, that is, should be obliged first to give him warning. It is not considered necessary first to serve a special notice upon a thief of the illegality of the action, before we can convict him of stealing our property. Let the milk-man look to the parties of whom he has his milk, if himself innocent, for satisfaction. The first offence should be made $100, and we give this as the opinion of one of the judges of the Superior Court, and for the second offence take away the man's license, after which, if he is found engaged in the milk trade, let him survey the former scenes of his adulteration from the windows of the State Prison. Cochituate water sold at 4 cents a quart is a very profitable business, and $20 thus paid is not found very burdensome, especially when the convicted party finds the purses of all his guilty associates open to make common cause in fighting the case and paying costs.

We would not for a moment be thought to imply, from anything we have written, that Boston milk is, as a general rule, bad milk; on the contrary, from our experience, we do not hesitate to pronounce it of a superior quality to that of most large cities. Most of the specimens of pure milk we have examined from various carts have contained 8·6 per cent. of casein and butter, and only 85 per cent. of water. Its flavor, color and body of cream are generally excellent, and its character is a credit both to the honesty and capability of its producers. Such is the nature of this important article as it is found in the best dairies about Boston, and in this state it is delivered to a great proportion of the more wealthy classes of the inhabitants of this city.

There are two great sources or channels by which the immense supply of the city is daily replenished, namely: the carts, which bring it direct from the dairies in the immediate vicinity of Boston, and the milk-trains which come over the various railroads and drain the surplus supplies from the more distant towns in Massachusetts and New Hampshire. The former are situated principally in Lexington, Waltham, Dedham, Roxbury, Quincy, Dorchester, Milton, and in fact nearly every town within a radius of fifteen miles contributes its share, much or little, to the city's consumption. Most of the large dairy farmers in these places keep from twenty to forty cows, and own one or two carts, which leave home at a very early hour in the morning in order to supply their customers before breakfast, so far as possible. The milk they thus distribute is accordingly that of the preceding night and morning at this season, and is sold to the consumer for 5 or 6 cents a quart. Lexington, for instance, sends every morning to Boston more than 1000 gallons in this way, five sixths of which amount is raised in that town. As some of our readers may like to know how such farmers treat the animated machine from which our household milk is obtained, we give extracts from a letter recently received from one of the largest proprietors in that town.

> "The amount produced in summer and winter is about the same. The average yield of a dairy of cows for ten and a half months, well fed, will not vary much from seven quarts per day to a cow. The other month and a half of the year she is kept dry, it being the time previous to dropping her calf. The cows are usually turned out to grass about the first of June, being stabled every night, and kept there until the first of November, being fed a portion of the time, morning and evening, with green fodder, cut up and brought into them as they may require it. To produce a satisfactory amount of milk, nature has to be supported, and hence it is very poor economy to stint the feed of a cow, for it will be scarce ten hours before you will be reminded of it in the decrease of her milk. I have 26 cows, 18 of which are in milk. I feed the best of English fodder, together with grain of different kinds, such as corn meal, cotton seed, shorts, barley, rye and roots, believing a change of diet as conducive to health in the animal as in man, and without it you may look in vain for the realization of your expectations. * * * * I think if the city would be less complaisant towards adulterators of milk and more vigilant in ferreting them out and bringing them to justice, to say the least, they would be doing an act of justice to the raiser and consumer of milk."

A large city, however, requires a large country to satisfy the calls of its stomach alone—all England is hardly large enough to feed London—and accordingly we are obliged to go farther from home, even to other States, to obtain at least two thirds of our daily supply. The largest milk-trains come in over the Fitchburg, Lowell and Worcester railroads, bringing their contributions from the large dairy districts through which they pass. The Worcester Railroad, or, as it is better known, the Westboro' milk, is nearly all gathered from the towns of Westboro', Northboro' and Southboro'. The train starts at some hour in the night, so as to reach the city very early in the morning, when it is met by the various carriers, who load their carts and distribute immediately to their customers the night and morning milk of the preceding day. Upon the Lowell and Fitchburg roads the management is somewhat different, the system of milk agencies prevailing. The agents purchase in the border towns of Massachusetts and New Hampshire large quantities of the farmers at a very low price, which, arriving at Charlestown and East Cambridge in the forenoon by the special milk trains, is furnished by them to the wholesale milk dealers and carriers. These convey it the same afternoon and following morning to their customers, both retail shops and private families. Probably very few persons have any correct idea of the large amount of milk which is brought to this city every day by these various routes, or of the capital and number of persons employed in this business. Since 1859 there have been registered at the office of Mr. Faxon, City Inspector, the names of 416 wholesale dealers, that is, persons employed in carrying milk either from the railroads or the adjoining towns to their customers within the city, some of whom require several carts for this purpose. The amount conveyed by each individual varies very much from the one or two cans by the Irishman who owns a single cow in South Boston, up to the large dealer who takes 100 or 200 cans daily from the milk-trains. From 20 to 35 cans is the average number of the out-of-town dealers. The daily consumption, and the sources which supply it, may be estimated as follows:—Worcester Railroad, 1,400 cans; Eastern Railroad, 50; Boston and Maine, 150; Lowell, 710; Fitchburg, 2,475; country carts, 2,215; in all, 7,000 cans. Although a small portion of this milk goes to Charlestown and other places, still, as nearly as can be ascertained, 16,000 gallons, or 64,000 quarts, may be set down as the daily consumption of Boston, which in one year amounts to 5,840,000 gallons. This amount requires that 10,000 cows at least should be kept for the sole use of the city, and represents an annual cost to its consumers of more than one million dollars.

When we consider, therefore, the extent of the traffic, the number of persons through whose hands it passes, each of whom expects to realize a profit from the next party, the character of some of those engaged in the business, the deficient supply at certain seasons, the cheapness and abundance of water, its ready power of mingling with milk, and the difficulty of detecting its presence there by any simple process, it will be easily understood how a specimen may be watered three or four times between the udder of the cow and the mouth that drinks it. There are undoubtedly as many honest dealers in this as in any other business of a liquid nature, but we fear that the consciences of very many of them are guaged below the standard of a mere pint of water to the can, especially when the supply doesn't hold out. We believe that, as a rule, the farmers sell good milk, but there is always a suspicion that milk which has already paid three or four profits, and is then offered for sale at retail for four cents a quart, will be found to contain a larger proportion of water than nature ever intended it should. We have heard the excuse offered that as long as water only is added, and the price thus is brought within the reach of the poor, no great harm is done, and undoubtedly many parties act thus without thinking themselves guilty of any great offence; but it would certainly be more economical for the poor woman to pay a cent or two more for pure milk, and add her water at pleasure afterwards. There are other considerations, however. Nature always manufactures her fluids in accordance with the most approved rules of chemistry, and any attempts to improve upon her generally cause trouble. Milk is a very complex substance, and at best requires delicate attention to preserve it as such, even for a short time, so that any disturbance of the equilibrium existing between the relative proportions of its elements hastens those chemical processes which generate lactic acid, or, in other words, convert it into sour milk. Milk adulterated with water, therefore, is milk no longer: and although the agent thus employed is by itself harmless, its use in this way is none the less a grave offence both against the health and the pocket of the community.

Adulteration, as practised in Boston and vicinity, consists generally in the addition of water alone, although not unfrequently a little burnt sugar is added to restore the color, and common salt to bring up the specific gravity of the specimen to the normal standard. In one instance only have we found any solid foreign substance, and in that case corn starch was used to thicken and color the specimen. The cases which are complained of are found to contain in 100 parts from 20 to 50 measures of water intentionally added. In one instance only have we found the water of adulteration to exceed this proportion, and almost always analysis shows that there is a standard system adopted by such dealers, and that such specimens contain either 25, 33 or 50 per cent. of water, and there is no doubt that the prices are arranged between the dealers accordingly.

We have thus endeavored to place before the public eye the frauds practised in the milk trade, and the amount of protection afforded by the present law. There is a plain duty for the Legislature, the city, and the individual to perform. The former should enact a law which shall make the path of the prosecuting officer easier and of the fraudulent dealer harder; the city should enforce a more stringent ordinance and refuse a license to every person twice found *carrying* adulterated milk; and every citizen should insist upon and aid in the enforcement of measures so important to the public health.

Social Meeting of the Medical Class at the Revere House.—An entertainment, the second of the season, was given on Friday evening last by the Medical Faculty, at which the students and many of the physicians of the city were present. We could but think, as we saw the long suite of rooms filled with the numerous guests, how great a change has taken place in the Medical Department of the University within a short time. Even half a dozen years ago the private parlors of the professors were found quite large enough to accommodate the classes which then assembled here for the lecture season. A very pleasant feature of the occasion was the presence of several of the professors in other departments of the University, which, we hope, is the commencement of a more intimate intercourse between Alma Mater herself and her offspring this side the Charles. We have barely space to allude to the high musical talent and cultivation exhibited by several members of the class.

Massachusetts General Hospital.—Dr. William J. Dale has been compelled, by the pressure of his duties as Surgeon-General of the State, to resign the office which he has so ably filled for the past twelve years, of State Trustee of the Massachusetts General Hospital. Occupying a position of peculiar delicacy, giving him supervision of a number of his professional brethren, Dr. Dale has performed the responsible duties of his office with so much delicacy, and yet with so much fidelity, as to make all parties feel that his sympathies were fully with them in all that was calculated to promote the highest humanitarian and professional interests of the Institution. He retires from office with the sincere regret of all the gentlemen who have been in any way associated with him in its management. Harrison Ritchie, Esq., of

Boston, has been appointed by the Governor and Council as his successor.

Reports of Asylums for the Insane.—From the admirable Annual Report of Dr. Ray, Superintendent of the Butler Hospital at Providence, we extract the following numerical statement:—

"On the 31st of December, 1861, there were in the house 135 patients—69 males and 66 females. During the year there were admitted 36—16 males and 20 females; making the whole number under care, 171. There have been discharged 39—20 males and 19 females; leaving, on the 31st of December, 1862, 132. Of those discharged, 17 had recovered; 7 had improved; 10 were unimproved, and 5 died."

The following is taken from the long and valuable report of Dr. Gundry, Medical Superintendent of the Southern Ohio Lunatic Asylum:—

"There were remaining in the Asylum on 1st November, 1861, 159—78 males and 81 females. There were admitted during the year ending Oct. 31st, 1862, 92—44 males and 48 females. Number under treatment during the year, 251—males 122, females 129. There were discharged as recovered, 61—28 males and 33 females; improved, 11—5 males and 6 females; unimproved, 7—5 males and 2 females; died, 11—8 males and 3 females. Remaining in Asylum on 1st November, 1862, 161—males 76, females 85."

We have received from Mr. Patten, Druggist, specimens of Robbins's water-proof surgeons' adhesive plaster, which appears to possess valuable properties. It only requires moistening to adhere closely, and may be applied equally well at all seasons, and upon wet surfaces and wounds which require frequent washing. It is evenly spread upon sheets ten inches wide and a yard in length, and is put up in tin boxes. It is also spread on silk of one half the above width.

Mortality in Coal Mines.—A correspondent of the London *Times* calls attention to the frightful casualties in coal mines:—

"In the ten years, ending with the year before last, upwards of nine thousand lives were lost in our collieries. Our coal mines cost us every two years almost as many lives as were lost at Waterloo by British and Hanoverians together. We read of whole battalions crushed and squadrons annihilated, but the simple fact is, that in two regiments only, out of the whole army, did the number of rank and file killed exceed 100. The 27th lost 103 men, and the 3d battalion of the 1st Foot Guards 101. Those were the highest returns. The Scots Greys, represented by our French informants as utterly destroyed, and who really were most fiercely engaged, lost 96 men. The casualties among the officers were, of course, in proportion, but they would add little to the totals. The entire list of the killed on June 18, amounts to 2047. If we now just repeat, that between 900 and 1000 men are destroyed by violence every year in our coal mines, we shall have done enough to show what such figures mean."

Explosions of fire-damp, caused by the use of powder for blasting, are the main causes of this great slaughter.—*Med. Times and Gaz.*

POWERFUL OXIDIZING MIXTURE.—Bœttger calls attention to a remarkable property possessed by a mixture of oil of vitriol and permanganate of potash, which furnishes one of the most powerful oxidizing agents hitherto discovered. Ether, alcohol, essential oils, and other inflammable substances are fired by simple contact; sulphur is oxidized to sulphuric acid with a rustling noise. The mixture is prepared with two parts of the permanganate and three parts of the oil of vitriol. If a small portion be placed in a flask, the contained air is constantly ozonized.—*Pharmaceutical Journal.*

THE New York State Medical Society, at its late session, recommended that the American Medical Association should hold its annual meetings, notwithstanding the present war. We have on other occasions urged the importance of maintaining the integrity of the National Association by holding its regular sessions, and in this we have lent expression to the opinion of the profession of this State. But in other quarters there is strong opposition to the call of another meeting until the war is concluded, and this opposition controls the action of the local committee. We do not, therefore, anticipate a meeting this year.—*American Medical Times.*

APPOINTMENT.—Dr. Benjamin S. Shaw, Superintendent of the Massachusetts General Hospital, has been appointed Medical Examiner to the Pension Bureau.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, FEBRUARY 21ST, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - - -	39	44	83
Ave. mortality of corresponding weeks for ten years, 1853—1863,	40.8	37.6	78.4
Average corrected to increased population - - - - -	00	00	89.28
Death of persons above 90 - - - - - - - -	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
15	5	3	1	0	1	2	2

TO CORRESPONDENTS.—Received, Circular Letter from the Surgeon-General U.S.A.—Letter from Dr. G. T. Fisher, Sing Sing, N. Y.—Letter from Dr. W. G. Bruce, Ass. Surg. U.S.N.—Letter from Dr. Thomas T. Smiley, Memphis, Tenn.

BOOKS AND PAMPHLETS RECEIVED.—Principles and Practice of Surgery, &c., by Henry W. Smith, M.D., Philadelphia. (From J. B. Lippincott & Co.)—Report of the Commissioners of Pensions. (From Dr. G. S. Jones.)—Reports of the Trustees and Superintendent of the Butler Hospital for the Insane for 1862.

MARRIED,—At Brooklyn, N. Y., Feb. 19th, Dr. C. C. Jewett, Surgeon of the 16th Mass. Regiment (late of Holliston), to Miss Annie S., only daughter of James Freeland, of B.

DIED,—In this city, Feb. 23d, Dr. David Osgood, aged 69 years.—At St. Croix, West Indies, Jan. 20th, J. Edwards Leavitt, M.D., of New York, 36.

DEATHS IN BOSTON for the week ending Saturday noon, Feb. 21st, 83. Males, 39—Females, 44.—Abscess (of liver), 1—accident, 1—anæmia, 1—apoplexy, 2—congestion of the brain, 3—disease of the brain, 2—inflammation of the brain. 1—bronchitis, 2—cancer, 4—consumption, 15—convulsions, 2—croup, 5—cystitis, 1—diarrhœa, 2—diphtheria, 2—dropsy, 1—dropsy of the brain, 7—drowned, 2—dysentery, 1—scarlet fever, 3—typhoid fever, 2—disease of the heart, 2—infantile disease, 3—jaundice, 1—disease of the kidneys, 1—congestion of the lungs, 1—inflammation of the lungs, 1—marasmus, 2—old age, 3—paralysis, 2—pleurisy, 1—ulcer, (phagedenic), 1—unknown, 5.

Under 5 years of age, 32—between 5 and 20 years, 12—between 20 and 40 years, 15—between 40 and 60 years, 15—above 60 years, 9. Born in the United States, 57—Ireland, 17—other places, 9.

THE

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THE GEOGRAPHICAL DISTRIBUTION OF CANCER OF THE LIP.

By Dr. Wilhelm Stricker.

[Translated from *Virchow's Archiv.*, Vol. xxv., p. 600, 1862, for the Boston Med. and Surg. Journal.]

* * * * * Dr. Louis Lortet, of Oullins in the Department of the Rhone, in his Essai monographique sur le prétendu cancroide labial (Paris, 1861, 4to), has made use of his sources of information not only in an unusually complete manner, but has collected also, for a purpose which we principally wish to communicate, valuable information in writing, which, however, is not sufficient for the farther investigation of several points. This Archiv has proved itself so excellent an instrument in the investigations of the Editor upon Lepra, that we do not hesitate in this way to bring the wish of the author before German Surgeons. His questions relate principally to: 1st, the relative frequency; 2d, the number of operations compared with the whole number of those operated upon; 3d, the frequency of the disease in relation to an elevated or low residence; 4th, its frequency in connection with occupation; 5th, with nationality; 6th, with sex; 7th, with the period of life; 8th, with the character of the diet. Answers to these questions the author desires should be sent to his father, Dr. P. Lortet, Lyon, Quai Fulchiron 24.

We now turn to the work of L. Lortet.

Ætiology.

Predisposing Causes.

A. *Sex.* For a long time it has been observed, that cancer of the lip is a disease which particularly attacks the male sex. According to the various localities, women form $\frac{1}{20}$ to $\frac{1}{5}$ of those affected, as the following list shows.

Lebert (Paris) 15 males, 3 females. (Traite des mal. cancér. Paris, 1851.)

Gault 20 M., 1 F.

Bertin (Montpellier) 24 M., 3 F.

Melzer (Laibach) 127 M., 15 F. (Jenaische Annalen, 1850. II. 480.)

Heurteaux (Paris) 69 M., 10 F. (Thèse du Cancroïde. Paris, 1860.)

Bruns (Tübingen) 50 M., 5 F. (Handb. der Prakt. Chir. 1859. II. 535.)

Barrier (Gaz. Méd. de Lyon, 1852, u. Schriftl. Mitthlg.) had between the years 1850 and 1855 observed 71 cases, of which 62 were males and 9 females, 59 affected the under and 12 the upper lip, of which latter number 6 were males and 6 females.

Of the 181 cases collected by Desgranges (Gaz. Hebdomadaire, 1854) 158 were males, 23 females; 153 affected the under, 22 the upper lip and 6 the corner of the mouth.

The total of all these numbers gives to 527 men 69 women, or a proportion of $7\frac{6}{10}$ to 1.

B. *Age.* Among 252 cases only one was below the age of 20 years, a girl 16 years old. It is only after the 30th year that the disease increases in frequency and continually augments up to the greatest age, if we compare the number of cases with the number of those living at certain periods of life. Of course the absolute number of cases of cancer of the lip diminishes at a great age, since in the 60th year there is living only the 5th, in the 70th the 8th, in the 75th the 12th, in the 85th the 93d part of those who are born, and moreover very aged men seldom submit to an operation.

Lebert, among 17 cases of the disease, found 2 from 30–35, 1 from 35–40, 2 from 40–45, 7 from 45–50, 2 from 50–55, 3 from 60–65 years old.

The first beginning of the disease Bruns in his 55 cases found was noticed by 2 between 20 and 30, by 9 between 30 and 40, by 11 between 40 and 50, by 13 between 50 and 60, by 15 between 60 and 70, and by 5 between 70 and 80 years old.

Among the 260 cases collected at the Hôtel Dieu in Lyon, 13 occurred at the 56th, 12 at the 50th, 11 at the 42d, 58th, 59th, 60th and 62d, 10 at the 42d year, and so forth, which compared with the single cases of 1 at 16, 1 at 29 and 32, 2 at 33 years old, demonstrates satisfactorily its predominance at the advanced periods of life.

C. *Temperament, Occupation.* Dr. Lortet thinks himself authorized in believing that the sanguine temperament predisposes to this disease. Most of those affected with it, whom he has seen, were blonds, of a rosy complexion, with strongly developed capillaries. As to the greater proportion of country people affected, Lortet agrees with Bruns. Among the 181 cases collected by himself, Lortet found 107 from the country, 12 weavers, 4 each of carpenters, stonemasons, shoemakers and proprietors, 2 each of waggoners, woodsawyers and servants, and 19 without definite occupation. This preponderating number of peasants by no means indicates an excess of rural population in the departments to which the patients belonged, for out of a total population of 3,924,000, only 1,095,000 were peasants, or somewhat more than ¼, whereas the number of peasants thus affected amounts to more than ⅜ths.

D. *Clinical and Geographical Relations; Hereditability.* Hurteaux has collected 11 cases in which the disease was inherited, to which Lortet thinks he may add 4 or 5 more, although he considers this number far too small to warrant any conclusions whatever.

More numerous, although still not sufficient also, is the material for the determination of the geographical distribution of the disease.

In the neighborhood of Lyon, among 3217 "bloody" operations performed in the period from 1850–1860, 181 cases of cancer of the lip occurred, which were distributed among the Departments as follows: Loire 29, Upper Loire 20, Rhone 25, Isère 14, Ain 13, Drome 11, Saone and Loire 10, Jura 9, and so on; a division to which Lortet himself attaches little importance, and which, in fact, is of no value without a knowledge of the contingent furnished by each district to the aggregate of the patients in Lyon.

In Sweden, according to the report of the chief surgeon of the great hospital at Stockholm, Rosander, in 1860, the disease appears to be very rare. "From 1850 to 1859, out of 2200 operations there were 17 performed for 'cancer of the face' upon 16 persons, 12 males and 4 females, all peasants from the neighborhood of the city. Upon the mountains the disease appears to be still less frequent than in the plains. The other hospitals in Sweden are small, so that the whole number of operations in them would scarcely exceed those performed in Stockholm."

There occurs, therefore, in Lyon 1 operation for cancer of the lip in 17, in Stockholm 1 in 137, or allowing for cases of "cancer of the face" upon other portions than the lips, 1 in about 200 operations.

According to a letter from Dr. Ludwig Benjamin, in Hamburg there were only two cases of the disease in the period of 1854–1857, 1 in 1854 and 1 in 1856.

In Prussia, also, the affection appears to be very rare. According to Melzer, on the other hand, there occurred in the hospital at Laibach in 62 years among 27,800 patients, 453 cases of cancer, 142 of which were of the lips.

As to Switzerland, communications were received from Prof. Vogt, of Bern, Dr. Socin and Prof. Jung, in Basle, in 1860, from which it appears that the disease is quite frequent about Bern and Zurich, but rare in Basle, where in 38 years only 3 cases were observed in the surgical clinic.

According to a letter received from Bertin (1860), there were 895 operations performed at Montpellier during the period of 1851–1857, 33 of which were for cancer of the lip. Berrut writes, that in the year 1857 1607 cases were treated in the surgical department at Marseilles, 3 for this disease only, all of the lower lip.

Dr. Lindermayer, physician in Athens since the Grecian revolution, had observed only 2 cases up to 1860, and the physicians of the country had seen it very seldom.

Dr. Ph. Faure, who has travelled many years in Asia Minor, Syria, Palestine, Mesopotamia, Egypt and Nubia, found this disease, like cancerous affections in general, almost unknown in these regions.

Dr. Heinrich Barth also, the celebrated African traveller, states, in his written communications to the author, that, although consulted by innumerable patients, he saw but one case of cancer in a man, but none in a woman. In the tribe of Beni-Meluk, however, upon the Niger, several days journey east from Timbuctoo, which, indeed, is not purely African, but crossed with Barbary and Arabia, he met with an affection of the skin, which bore some resemblance to cancer of the lip.

Livingston and Lautré have never met with the disease among the nations of South Africa. The latter, who spent many years among the Bassutos, a community north of Cape Colony, did not see a single case of cancer of the face, which is by no means uncommon among the whites of Cape Colony.

From the facts presented, although imperfect, it appears, then, that cancer of the lip is of most frequent occurrence in Central Europe, which, to be sure, is also the best known region. As to the various agents accused of producing it—

Tobacco stands in the first rank, and particularly the smoking from a short pipe, the pressure of the tube of which upon the under lip was considered, as far back as 1795, by Sömmering, as the cause of cancer of the lip. Rigal and Bonnet believe it to be caused by the irritation which the teeth, injured by the stem, exercise upon the lips. Rechnitz observes that cancer of the lip is so generally prevalent in Hungary on account of a very strong tobacco, which, being either chewed or smoked from a short pipe, covers the lips with an acrid juice. Günter states, that nearly all those he operated upon were passionately fond of smoking, and that he often found them the second or third day secretly smoking behind the bed-curtains. Bouisson mentions 49 cases of the disease, all of which were observed in smokers. On the other hand, Bardeleben, in Greifswald, has operated upon many patients who never smoked; also Fleury, in Clermont. Bruns found among 55 operated upon only 10 great smokers, and one of these, in whom the seat of the disease was at the left corner of the mouth, had always held the pipe in the right corner. The experience of Hurteaux was the same; for of the 9 cases which he observed, 4 had never smoked, and among the 5 smokers in 2 only did the disease affect that portion where the pipe generally rested. Lortet, from his own experience in Hôtel Dieu at Lyon, could perceive no evidence of the influence of smoking. With regard to the statement of Melzer, whose accusation of smoking without satisfactory proof has been adopted in various surgical works as an universally accepted fact, Bruns has demonstrated that the pretended frequency of the disease in Krain is in no way borne out by the figures, which go to show rather that it is twice as frequent in the vicinity of Tübingen as in Krain. Lemarchand, in Finistère, where nearly all the women smoke short pipes, has seen, according to Hurteaux, nearly 100 cases of cancer of the lip in men, and not a single one in a woman. We have seen above, that in the Orient, where nearly everybody smokes, the disease does not occur, and it will be necessary to collect still more geographical and statistical facts before a definite judgment as to its ætiological relations can be formed. The material which I have obtained from the Reports of the Imperial General Hospital of Vienna for the years 1857, 1858 and 1860, is somewhat deficient, but demonstrates, nevertheless, the preference of the disease for the under lip and its preponderance in the male sex, and gives the relative number of the various forms of epithelial cancer in the whole number of patients.

Year.	Whole No. of patients.	Whole No. of operations.	No. of cases of epithelial cancer.	Cases of cancer of the lip.			Seat of the disease.			No. of operations for cancer of the lip.
				Total.	M.	F.	Lower lip.	Upper lip.	Both.	
1857.	24,943 (15,699 M., 9,244 F.)	355	31 (24 M., 7 F.)	12	12	—	11		1	5
1858.	25,606 (16,268 M., 9,338 F.)	399	57 (48 M., 9 F.)	14	13	1	12	1	1	9
1860.	21,557 (13,622 M., 7,935 F.)	325	29 (18 M., 11 F.)	15	—	—	10	5	—	7

PRACTICAL OBSERVATIONS ON, AND THE TREATMENT OF DIPHTHERIA, WITH ILLUSTRATIVE CASES.

By E. N. Chapman, M.D., Prof. of Therapeutics, Materia Medica, &c.

[Communicated for the Boston Medical and Surgical Journal.—Continued from page 75.]

Case XXXVIII.—Mrs. S., an English lady, 48 years of age, the mother of five children, enjoyed good health until one of her pregnancies, twenty years since, when she was attacked with inflammation of the bowels, which resulted in the premature birth of a dead child at the eighth month. Her last two children reached the full time, but were stillborn, as she thought, from the length and severity of the labor. Her illness, greatly aggravated by these two confinements, the last of which was nine years since, increased in severity; until, eventually, her sufferings became so great, that for long periods at a time she was bed-ridden, and obliged habitually, for five years, to take laudanum to quell her pains.

Her symptoms, from first to last, presented little variation, except in their severity. These were an obstinate constipation, tenderness, hardness and distension of the bowels, great soreness, and a feeling of constriction in the rectum, which was increased by alvine movements, and a sense of dragging, forcing downward and tension, extending from the back, over the hips and down the outlet of the pelvis. In the first stage of the disease her passages often contained a jelly-like substance, that was frequently stained with blood; and, uniformly, she was obliged to rely on cathartics or injections to relieve her bowels. The fæces were either scybalous, flat like a piece of tape, or in round, small rolls, from the size of a quill to that of the little finger.

She was under medical treatment in England for two years, without benefit. At this time, moving to New York, she became much worse; and all of her distressing symptoms reached their height. These were pronounced to be due to ulceration of the os uteri, by a physician of note in that city, who had her under treatment for two years and four months. From the obstinacy of the case, another practitioner was called in counsel; when, from the failure of gentler means, it was determined to resort to the hot iron. After its employment for a lengthened period, the uterine disease was stated to be nearly cured, only requiring one or two more applications; although her symptoms remained unchanged, and there was no relief from her sufferings. Accidentally observing a hollow, tube-like substance in one of her passages, she showed it to her physicians; who, on examination by the microscope, told her that it was like the membrane formed in croup. Upon this discovery, uterine applications were discontinued, and, for the first time, attention directed to the bowels; but, as the lady had lost confidence in her medical advisers, their services were dispensed with, and another physician called in. He attended her for a year, and gave a variety of drugs, without much relief following, excepting from injections of the nitrate of silver. By their use the membrane would come away, and transient comfort be attained, that continued until another was formed. This membrane was sometimes in shreds and filaments, resembling long, slender worms, sometimes broken up into a great number of pieces, sometimes rolled up in a ball, and sometimes in hollow tubes—a cast of the intestine—frequently twelve inches in length.

She now visited England, and, by the voyage, was cured of this disease. During her stay there for four months, and for the first six months after her return, she remained well, and was consequently free of those symptoms that had hitherto followed her; but at this time—three years since—her disease returned as of old. This lady sent for me two years ago last June, not that she wished to undergo a course of medication; as, in her language, *everything had been done that could be done*, and a cure in her case was simply impossible; but for the purpose of getting directions for the use of the caustic, the formula for which she had lost. She consented, however, by a promise on my part not to aggravate her condition by the trial of harsh means, to take, first a prescription of the gum turpentine, and then one of the sulphate of copper. With both medicines a small portion of rhubarb was directed at bed-time. These remedies were of no benefit; but an injection of lunar caustic—gr. ij. to ℥ i. of water—that was used whenever her distress was greatest, gave a measure of relief, provided the membrane came away, until another was formed. A specimen of this membrane, a tube three quarters of an inch in diameter and ten inches in length, I had an opportunity of seeing.

On repeatedly and carefully investigating her history, the fact was elicited that her medical attendants, throughout her illness, had entertained the opinion that her disease—uterine or intestinal—was inflammatory, and demanded for its cure antiphlogistics and low diet. Consequently, she had been confined within doors, much of the time in the recumbent posture, limited to light food, mostly vegetable, and directed to avoid alcoholic or other stimulants. This lowering regimen, only adapted for acute diseases, had been rigidly enforced; sufficient of itself, in so long a period, to break up the strongest constitution, since the animal frame cannot maintain its integrity unless all the elements of nutrition are supplied to the blood. Appreciating this truth as well as another—the frequent cure of chronic inflammation by stimulation—I resolved to bring the patient back to a diet—animal and vegetable—of the most nourishing character. Whilst thus supplying the proper materials of nutrition, I strove to aid digestion and assimilation by exercise in the open air, and, especially, by the use of an alcoholic stimulant. By this means I hoped to increase the crasis of the blood and the tonicity of the capillaries; when possibly the natural powers, thus invigorated, might surmount the local disease. It was extremely difficult to overcome the prejudices of the patient or dispel from her mind the terrible significance of the word, inflammation, which had been sounded in her ears for many long years—a waking horror by day, and a night-mare by night—but, eventually, on reflecting that she could be scarcely more miserable, she resolved to give this plan of treatment a fair trial. She was directed to take four tablespoonsful of brandy daily, to use the nitrate of silver injections whenever the local trouble was insupportable, and to follow a diet and cultivate habits indicated above. Disliking the brandy, she substituted Bourbon whiskey, of which she took a wineglassful during the evening. The stimulant, used in this way, had its full excitant effect, and should, according to old theories, have lashed the inflammation into a high grade of activity. Yet, strange as it may seem, the condition of the bowels rapidly improved; so much, that in a few days the injections were dispensed with and the whiskey was continued alone. Under its use her symptoms became gradually less severe; and the membrane, only occasionally appearing in shreds, finally disappeared in four months, when this peculiar condition of the bowels was seemingly overcome. The lady continued the whiskey for a month longer, during which time she constantly gained in strength and flesh; and now, supposing herself cured, she resolved to break up the habit of whiskey-drinking, as she did some years before that of taking laudanum, and discontinued the stimulant altogether. Two months subsequently, having relighted a bronchitis, to which in a chronic form she had long been subjected, she sent for me again; when I found the fauces congested and coated with the diphtheritic membrane. A tablespoonful of whiskey was given every second hour, which, without creating any noticeable stimulation, caused the membrane to disappear in six days. What was singular, on the fourth day of this attack, the membrane again appeared in the stools, and continued to be formed for a week. The cure was rapid under the use of the stimulant, and continued for six months, at the end of which time a few shred-like pieces of membrane showed themselves again during a fresh accession of bronchial inflammation. This relapse, notwithstanding the bronchitis, which in the first instance had been relieved as her strength improved, was promptly overcome by a return to the stimulant, which she had again omitted for a period of six weeks.

At the present time this lady is free from any abdominal symptoms, or any constriction or sense of irritation in the lower bowel; has natural passages, which contain neither mucus, jelly-like matter, or membrane; has little cough or expectoration, and has improved in blood and flesh, having gained more than twenty pounds. This improvement has been constant since the use of the stimulant, and only interrupted by its discontinuance. Probably, from the long duration of the disease, this treatment will have to be followed for one or two years before Nature will be diverted from its unnatural channels and a normal nutrition established.

[To be continued.]

ON THE USE AND DOSE OF BISMUTH.

[Dr. Robert Druitt contributes the following to the London *Medical Times and Gazette.*—Eds.]

Questions have arisen of late as to the dose of bismuth, and as to the fact that it is usually contaminated with arsenic. It is desirable, therefore, that the experience of such practitioners as use it largely should be put on record.

The trisnitrate of bismuth should be a powder so fine as not to occasion any grittiness when rubbed between the finger and thumb. It is wonderfully soothing to any excoriated or blistered surface of skin. Mixed with glycerine into a thick paint, it is a capital thing in certain ulcerations of the mouth. It is inestimable in irritable dyspepsia, gastralgia, and suspected ulcer of the stomach. If I am asked—why is bismuth usually given with soda, and how can it be proved that the good effects do not proceed from the soda only?—I reply, that people like the *taste* of bismuth. Patients can readily distinguish between bismuth, chalk, magnesia, and calomel, when put on the tongue; and it has a distinguishable and agreeable taste, which is *primâ facie* evidence in its favor. Again, patients take it of their own accord in large quantities, and find from it, when combined with a little soda, soothing effects which no dose of any alkali will produce alone.

But, then, the dose? I have heard of practitioners giving it in doses of two or three grains in pills. I have also read in books that it is a poison. If so, I cannot say at what dose its poisonous effects begin. It is a medicine which may be given with a purpose, and in doses large enough to fulfil that purpose; and I am pretty certain, from the vast quantities of it that I have prescribed within the last fifteen years, for patients in various parts of the world, that, if poisonous symptoms ever followed, I must have heard of them.

In a case, this year, of obscure disorder of the bowels, in which there came on an attack of inflammation of the cœcum, I believed that the end of the small intestine was ulcerated, and determined so to give bismuth, that the diseased part should, if possible, be protected by it. The patient began with thirty grains every four hours; and, after a day or two, forty grains twice daily. I know that she was supplied with 480 grains from the chemists in eight days, and took this quantity in nine or ten days, slackening the doses as she became better. The effect of the remedy was markedly beneficial.

If, then, bismuth contain arsenic, the latter is so sheathed or combined as not to produce any irritation of the stomach. But it is well enough known that arsenic may be given in immense quantities with no such irritation, and with great benefit. And what is the test? The patients take it of their own will and pleasure, without asking a fresh medical opinion. A patient told me yesterday, that he had been taking fifteen minims twice a day of that liq. arsen. chloridi (for our knowledge of which we are indebted to Mr. T. Hunt) for months and months at a time during the last three years. He takes it because he feels better, and never feels any harm, and this is the only solid evidence of the good effects of any remedy.

It is always convenient to have a formula, and the following one has been liked so much by my professional friends that I enclose it:—*Pulvis Bismuthi Compositus, 24 Doses.*—℞. Bismuthi trisnitratis, pulv. acaciæ, aa gr. 480; sodæ bicarb., gr. 240; zingiberis, gr. 120 (vel camphoræ pulv., gr. 24); sacchari albi, gr. 120, fiat pulvis. It should be kept in a well-corked bottle, and the patient may use it in twenty-four doses; each to be smoothly stirred in water, with one teaspoonful of brandy.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

JAN. 26th.—*Tumor of the Thyroid Gland.*—Dr. BOWDITCH reported the following case.

A gentleman, 64 years old, a farmer by occupation, stoutly built, had had hoarseness, with feeling of stricture about the throat, since February, 1862, and these symptoms had gradually increased. In July he had stridulous breathing, and a tumor began to show itself in the region of the thyroid gland, which of late had rapidly increased. When Dr. Bowditch saw the patient, the tumor was of the size of the fist, and was attached to the side of the trachea, tender at one spot, but generally of a scirrhous hardness. Its point of commencement could not be ascertained. There was orthopnœa, some difficulty in swallowing, no cough, but copious expectoration of frothy sputa, wheezing and slight hoarseness. Pulse 108, and small. Digestion good. The patient walked about, and went out. Diagnosis, malignant disease. Death occurred rather suddenly, eight days after Dr. B. saw the patient.

Dr. ELLIS showed the specimen. The tumor was about as large as the fist, and extended from the thyroid cartilage downward to a point below the clavicles. It measured about four inches transversely. The extreme portion of the right lobe was nearly healthy, the transition to the diseased character being gradual. The trachea was pushed to one side, and its cavity was encroached upon. The blood in the internal jugular vein of the left side was coagulated for a length corresponding to the extent of the disease. The microscope showed the large cells, with large nuclei and nucleoli, so often found in malignant growths.

FEB. 9th.—*Gun-shot Wound of the Chest.*—Dr. ELLIS showed the specimen, which came from a man who had been shot in an affray, and who died at the Hospital, under the care of Dr. CABOT.

The patient, while intoxicated, was shot by a man with whom he was having some altercation. The ball was fired from a small pistol, the assailant standing, at the time, within a few feet, and a little to one side. It entered the right breast, about the junction of the third rib with its cartilage, and having passed into the cavity of the chest, could not be traced. The patient was brought to the hospital within a couple of hours of the time of injury. A probe entered the wound at a very acute angle, passing inward towards the median line, and slightly backward. On coughing, bubbles of air came from the wound. Percussion gave no evidence of effusion into the chest.

The patient lived three days after his entrance into the hospital. The morning of his death, being delirious, he succeeded in rising and walking some little distance, when he fell, and on being placed in bed, almost immediately expired.

The bullet entered the anterior mediastinum, at the edge of the sternum, below the third rib, passed through the pericardium diagonally downwards, in front of the great vessels, ruptured the pleura of the left lung, near the point of exit of one of the large pulmonary veins, and was found loose in the left pleural cavity. The latter contained three pints of blood and serum, with a large amount of soft, red, recent coagulum. The right cavity contained about a pint of the same. The pleural surfaces of both lungs, anteriorly, were attached to the external surface of the pericardium by extremely thin, recent false membranes. A part of the lower lobe of the left lung was so much contused that it did not crepitate. The tissue near the ruptured pleura was infiltrated with blood, and a branch of one of the great pulmonary veins had apparently been perforated near the heart. The pericardium contained a quantity of blood, serum, and a large recent coagulum. The latter, and the pericardial surface generally, were covered with a soft, reddish-white, reticulated membrane. Over the great vessels, the surfaces were united by moderately firm, but recent false membrane.

Other organs normal.

Feb. 9th.—*Gun-shot Wound of the Pelvis; Ball extracted from the Rectum.*—Dr. Cabot reported the following case.

A soldier received a wound at the battle of Antietam, Sept. 17th, 1862, the ball entering the left buttock, on a line parallel with the trochanter major, and about two inches behind it, and lodging in the pelvis. Since the receipt of the wound he suffered severe pain in the pelvis, knee-joint and small of the back. The patient was always convinced, from his own sensations, that the ball was situated in the rectum, some distance from the anus, where, in fact, it was discovered by a surgeon in Philadelphia, who refused, however, to remove it, saying that the attempt would be dangerous.

The patient being etherized, a thorough examination of the wound was made with a probe, and with an instrument tipped with porcelain, but the ball could not be detected. The finger was then passed into the rectum, and the ball was felt lying beneath the mucous membrane. The membrane was ruptured with the finger, and the ball removed with the forceps. The patient did well.

Feb. 9th.—*Ovarian Disease; 576 pounds, by weight, of gelatinous substance removed in about 26 months and by 33 tappings.*—The case occurred in the practice of Dr. Samuel Gregg, of this city; the operations were performed by Dr. I. T. Talbot, and the following history of the case, which was reported by him, was read by Dr. Jackson.

Mrs. B., aged 68, the mother of three children, the youngest 41 years old, had been a widow more than forty years. She had an older sister, now living, who has had sixteen living children, at single births, the last after she was fifty years old. This sister suffers with some dropsical effusion in the chest. Another sister had twelve children, and died of dropsy (so called) after being tapped twice.

Mrs. B. was never very strong, and suffered severely with dysmenorrhœa till the cessation of the menses, which occurred in her 55th year. She was of a thin, spare habit, pale and rather sallow complexion, nervous temperament, and accustomed to much active exercise. For many years there had been a peculiarity in the alvine evacuations, they recurring five or six times in a single night, and not again for five or six days.

In June, 1860, she complained of severe pain in the hepatic region, with feeling of distension, which was not apparent. She complained of some oppression of the chest and dyspnœa, with loss of appetite, coated tongue, and a general feeling of *malaise*. Soon after this there was weakness of the abdomen, with a trembling, shaking sensation, as she said, as if it contained jelly, but without any increase in size. In August, the abdomen was found enlarged, and a tumor, movable and quite firm, was perceptible in the left hypogastrium. Oct. 14th, the abdomen had very much increased in size, and was becoming burdensome from the weight. Nov. 20th, the distension was very great, and presented the following appearances: The surface was somewhat irregularly rounded and knobbed, smooth and glistening; the superficial veins much enlarged and very perceptible. A distinct wave of fluctuation was felt by percussion on any part of the abdomen. By a digital examination the uterus was found to be very high in the pelvis, and the os uteri pointing backwards. Her strength had been failing rapidly; she was unable to move herself or turn in bed. Her countenance was pale, and wore a distressed, agonized look. She had extreme dyspnœa, with violent palpitation, especially in a recumbent position. She had complete anorexia, with some thirst, a slightly coated tongue, and unpleasant taste. She passed but little urine, rarely more than a gill in twenty-four hours, and the bowels only moved with an enema. Under such circumstances it was deemed best to perform paracentesis. A medium-sized trocar was used, but on withdrawing it no fluid flowed through the canula. On introducing a director, a thick gelatinous substance was found adherent to it, of about the consistence of calf's-foot jelly. A common India-rubber syringe was then attached to the canula, for the purpose of withdrawing some of this substance, but without effect. Nov. 23d, the operation was repeated, and a pump attached to the canula. After great effort about four pounds of this gelatinous substance were removed. This seemed to be in quite small cysts, and after one was emptied of its contents by means of a trocar, another could be punctured and entered. The operation was quite tedious, but afforded considerable relief to the patient. Nov. 30th, by means of a better arranged apparatus, seven pounds of the same substance were removed, with very marked relief. From this time her health improved, her appetite increased, she could move more easily, and her spirits were better. The operation was repeated at intervals of three, four, five, six and five weeks, removing twelve, fifteen, eighteen, twenty and nineteen pounds. After this, the operation was performed regularly about once in four weeks, and still later every three weeks, and about twenty pounds removed. At one time, after an interval of five weeks, twenty-four and a half pounds were removed. The material had sometimes a whitish appearance, and occasionally there was a considerable mixture of blood.

Her health continued tolerably good, although she suffered dyspnœa and distress in proportion to the time which elapsed after an operation. The operation was performed thirty-three times, and 576 pounds removed in about twenty-six months. The last operation was performed on January 8th, 1863; and her health, which for two months had been gradually failing, became rapidly worse. Two weeks afterwards there was a profuse discharge through an opening by ulceration, about two inches above the navel, and, on the 29th of January, she died.

On dissection, the abdomen was found distended by a cyst, of which the parietes were generally very thin, though in some parts quite thick, everywhere adherent, and containing sixteen pounds of the same kind of material that had been so often drawn off during life. The lower part of the abdomen was occupied by a mass of disease, considerably larger than a man's head, and consisting of a gelatinous substance, contained in and traversed by thin whitish firm cysts and septa ; no one cyst being distinctly traceable to any considerable extent. A small amount of whitish, opaque material was found, and which would probably prove to be more or less fatty, under the microscope ; and, excepting this, there was nothing but the gelatinous, the color varying somewhat, though generally citrine. The principal disease being in the left ovary, the right was also similarly affected, but the tumor that it formed would not have been larger than the head of a new-born child. The uterus and bladder were healthy, as were the other organs, excepting the liver, which was affected with fatty degeneration ; the intestines had everywhere, externally, a dark bluish-gray color, and the diaphragm was pushed upwards so as to encroach considerably upon the organs of the thorax : the ureters, also, were obstructed by the pressure of the tumor, and were considerably distended.

Dr. Jackson said that he had had an opportunity, by the kindness of Dr. Talbot, to examine the tumor after its removal from the body, and he did not remember to have seen, before, an encysted ovary in which the contents were entirely gelatiniform. If it were not for the large cavity that had been so repeatedly punctured, he thought that a malignant colloid affection might be suspected.

EXTRACTS FROM THE RECORDS OF THE BERKSHIRE DISTRICT MEDICAL SOCIETY.

BY FRANK A. CADY, M.D., SECRETARY.

(MONTHLY MEETING, January 28th, 1863.—Continued.)—Dr. H. H. CHILDS spoke of the administration of ether in whooping cough, and believed that it not only relieved the paroxysms, but shortened the duration of the disease. Dr. Cady had administered it often, but had been unable to obtain any other benefit than that of relieving the paroxysms.

Dr. CADY reported a case of supposed fibrous tumor of the uterus, complicated with ascites. The patient was about 40 years of age, unmarried. The first evidence of any disease in the uterus appeared about two years since. A sense of weight in the pelvis, with occasional sharp pains in the region of the uterus, general fulness of the lower part of the abdomen, and a tumor about the size of a cricket-ball, and oval in shape, just about the pubis, were the first symptoms noticed. The general distension of the abdomen increased. A fortnight later, the ascitic effusion had become so abundant that the tumor could not be defined. In ten days more, the abdomen had become so much distended that respiration became rapid and difficult. Paracentesis was performed, and forty-three pounds of fluid withdrawn. The withdrawal of the fluid gave great relief for a time. The tumor continued to increase in size. The ascitic effusion, in four weeks, returned in greater quantity than before, requiring the operation to be performed again. This operation had been repeated, at various intervals, to the present time—nine times in all ; the last occurring a week since, when seventy-three pounds of fluid were withdrawn. The tumor, after the last tapping, was easily defined, and owing to the relaxed condition of the walls of the abdomen after the removal of the fluid, its size could be easily ascertained. It occupied the pelvis, rising a little above the umbilicus, was about twelve inches in its transverse, and from seven to eight inches in its antero-posterior diameter. The vertical extent could not, with the same accuracy, be determined. The cavity of the uterus was much elongated—the sound, without obstruction, being introduced 5¼ inches from the os. The patient had not suffered much from pain. Her distress had been chiefly from the weight of the tumor and the distension of the abdomen, with the ascitic effusion; and although somewhat emaciated, her appetite remained good, and her digestion not greatly impaired. She menstruated regularly for the first six months after the tumor was discovered, irregularly for six months more: but for the past year, had not menstruated at all.

Dr. Holmes reported a case of *placenta prævia.* When he was called, the woman was pulseless, from the loss of blood. Both mother and child were lost.

Dr. Cady reported a case of an hydrocephalic fœtus, with the following history. Mrs. C., of S——, eight and a half months advanced in second pregnancy, was thrown from her carriage with some violence, upon the frozen ground. The membranes were ruptured at the time of the accident. Occasional labor pains came on, the evening following, and continued for twelve days, when they became regular, and recurred with great intensity for six days, at the expiration of which time Dr. C. was called. He found, on examination, a cephalic presentation, the scalp of the fœtus separating the vulva during each pain, and receding in the intervals of repose. He learned from the physician in charge, that he had been in attendance five and a half days, and that, although the pains had been of great intensity, the labor had made no progress for more than three days. Dr. C. at once applied the forceps, but the head offering no resistance, they slipped on the first traction made. The head was then punctured, when about 5½ lbs. of fluid escaped. The fœtus was then removed, with strong hæmorrhoidal forceps, fastened through the scalp and cranium. The bones of the cranium were found to be widely separated, and the fœtus enormously hydrocephalic. The fœtus and placenta were both in an advanced state of decomposition, showing the vitality of the child must have terminated at the time, or soon after, the accident to the mother. The placenta had the appearance of having been for a long time detached from the uterus. No hæmorrhage followed its removal. The recovery of the mother was both rapid and complete.

Dr. Brown gave his experience in the treatment of diphtheria. He had been in the habit of cauterizing in the early stages, afterwards to support the patient with broth, brandy, and quinine.

Dr. Miller spoke of the great increase in the use of quinine, not only in the doses given, but in the greater range of its application; also of the change, in the type of disease; and inquired whether the increased use of western articles of food—as beef, pork, &c., might not have something to do in giving to diseases of the East, certain characteristics of western diseases. He suggested that some measures be taken to get statistics upon the subject.—(Dr. M. will open the discussion on the use of quinine, at the next meeting.)

The Society adjourned to dine with Dr. Cady.—(No session after dinner.)

Curability of Insanity in India.—In the four native asylums of Bengal, 929 patients were under treatment last year. Of these, 277 were cured or transferred to their friends, and 117 died.—*Brit. Med. Jour.*

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MARCH 5, 1863.

Dr. Arnold on Medical Provision for Railroads.—Railroad accidents constitute so large a proportion of the severe casualties of the present day, that it is somewhat remarkable that no systematic, organized provision has as yet been made in this country for the prompt and efficient relief of their unfortunate victims, by any of our numerous Railroad Corporations. A very little reflection shows how important such a provision is to the sufferer as a means of saving life and limb, and to the corporation as a pecuniary saving. The gross amount of injuries of this kind, when we look over the many railroads traversing our country in every direction, summed up in a statistical form, would present a startling picture of suffering and death, which he hardly realizes whose impressions are based on his own knowledge of individual cases. At the present time, too, when the public sense of horror at the announcement of fearful wounds or sudden deaths from this source is somewhat blunted by our sad familiarity with the bloody havoc of war, it needs some such exhibition to enable us to realize that here, indeed, is a case calling for the most serious consideration and inquiry, whether something may not be efficiently done to efface or greatly to curtail such a terrible record. Doubtless these or similar reflections have crossed the minds of many thoughtful members of the profession at different times, particularly those who have been summoned personally to the relief of the mangled subjects of these disasters, only to feel too acutely how very imperfectly the extemporized arrangements at their command fulfil the desired object. Such experience prompted Dr. Edmund S. F. Arnold, of Yonkers, N. Y., last year to address the Medical Society of that State on this important subject. That address we have read, and have been deeply impressed with its statements and suggestions. We must confess we had not before fully considered how much needless suffering and loss of life there is arising from this source, owing to the want of some systematic preparation to meet such exigencies when they occur. Dr. Arnold has given the whole subject the most careful consideration, turning over in his mind various projects for the desired end, and finally elaborating a plan which strikes us as, in the main, most judicious. Of the necessity of some provision, the statistics which he gives of railroad accidents in his own State are proof enough. These show that in New York alone, during the five years from 1856 to 1860 inclusive, *six hundred and eighty-three persons were killed and six hundred and twenty-four wounded, or thirteen hundred and seven in all injured*—an average of *two hundred and sixty-one per annum!* Of these accidents, an average of one hundred and eighty-eight per annum occurred on five leading roads only, of the thirty lines in the State.

Dr. Arnold draws, from personal experience, a vivid picture of the scene of confusion and suffering which is presented by one of these terrible casualties. The want of proper appliances for dressing the injuries of the wounded, the absence of the commonest comforts to save them from unnecessary suffering, the hurried summoning of any one claiming the title of doctor—often the veriest quack in the neighborhood—the painful transportation of the wounded over long miles of road to some distant hospital, subjected to needless torture on the way for want of proper accommodation in the cars, the excitement and confusion and horror, all make up a picture which Dr. Arnold presents with all the force of truth, for he draws it from nature and his own observation. To meet such emergencies in such a way as to make the amount of suffering and the loss of life as small as possible, is the object which he has in view. While turning over this subject in his mind, Dr. Arnold was informed that Mr. N. D. Morgan, of Irvington, was engaged in preparing a bill making efficient provision for these cases, to be introduced into the New York Legislature. He cordially adopted the plan of Mr. Morgan, but it unfortunately failed to become a law. Not discouraged, however, he again presented the subject before the surgical section of the New York Academy of Medicine, in October last, giving an abstract of the bill, which is still on file in the State Senate, and which it is to be hoped will yet pass the Legislature of that State. Of this bill Dr. Arnold says:—

"It provides for an association of the railroad companies of the State, the same to be a 'body corporate,' managed by a 'Board of Managers,' consisting of the Presidents, or such other officers of the associated companies, as may be designated by the respective companies, and the President of the Association, who shall be a citizen of the State of New York, and not an officer of any railroad company.

"The association shall make up a guarantee fund of $100,000, chargeable upon each road as to its passenger traffic; and to enable the association of railroads to meet casualties, the respective companies shall, in their discretion, be allowed to charge four tenths of a mill per mile to every passenger, or one cent for every twenty-five miles or distance within it, in addition to the usual fare. In return for this, each passenger is guaranteed, in case of death, $5,000 to his heirs; in case of loss of a limb, or an incurable injury seriously interfering with usual occupations, $5,000, and for minor injuries $25 per week, provided that such payments shall not extend over 52 weeks. The association also undertakes to establish surgical stations, at distances of not over ten miles from any one spot, which shall be provided with suitable necessaries, and to appoint competent surgeons to attend them when required. This done, the railroad companies are to be exempted from all liability on account of any accident to passengers.

"The bill provides further, that the fund raised by the tax upon passengers, which may be called the 'Casualty Fund,' shall be employed for no other purpose than to pay compensations with the necessary expenses of management, and that whatever remains over and above shall accumulate, and when the interest on such accumulation shall amount to a sum equal to the tax of one tenth of a mill, then the tax on the public shall be reduced to three tenths of a mill, and so on until the passenger tax is abolished altogether. The medical provision will be paid for by other means, to be presently mentioned.

"I may here observe that there is one point, on which I differ slightly from the author of the measure. He proposes that surgical stations should not be further than ten miles from any one spot. This would contemplate stations twenty miles apart. I propose that they should not be more than ten, and that where this is not practicable we should make some provision in the cars. Suppose that two given stations were twenty miles apart and an accident happened five miles beyond one of them, the train could not go back to the nearest one, and it would have to carry the sufferer fifteen miles, often with great delay from intermediate stoppages. Such distance ought to be reduced to a minimum. Ten mile distances absolutely between stations would be far more appropriate, and not involve too great an outlay. The more thorough the provision, the greater the ultimate economy both of life and money.

"To return to the Bill—it provides that on an accident occurring on any road, the company shall be fined to the extent of one third of the amount to which it has rendered the associated fund liable. This fine is to go into a special fund which may be called the 'Reward and Penalty' fund. For instance, if five passengers were killed and others injured so as between them to draw for five thousand more on the casualty fund, and the total thereby made $30,000, the company, on whose line the accident occurred, would pay $10,000 into the reward and penalty fund. Thus, while whatever comes from the public will go back to the public, on the other hand the companies are by no means relieved from liability. Owing to the liberal compensations allowed, the penalties would in many cases be greater than that now entailed through the instrumentality of courts of law.

"A clause has likewise been introduced by which, when companies send sufferers to hospitals, and pay usual rates for attendance on the same, such action shall not be held to imply any legal liability for damages on the part of the company. The object of this is as follows:—When a person is injured and sent by the railroad company to an unendowed hospital, it (the company) is willing to pay the same as others for the attendance, but insists that a paper shall be signed by the injured person to the effect that doing so shall not be held as an admission of culpability on its own part. No sooner are such persons in the hospital than they are surrounded by a low class of lawyers, who persuade them not to sign any such paper, and consequently companies are compelled to refuse payment for their own protection. The difficulty is obviated by the above clause.

"Out of the reward and penalty fund, all charges of medical provision and general hospital expenses are to be paid, and at the end of the fiscal year whatever remains over and above is to be redistributed among all the companies pro rata as to their contribution to the casualty fund. Thus, as Mr. Morgan observes, 'rewards and penalties are set forth of the highest importance, as securing care and proper equipment on every road of the association.' Companies not meeting with any accidents will be absolute gainers, while those with whom they occur will foot all the expenses.

"Such are the main provisions of the Bill, and it appears to me that, based, as the measure is, partly upon life insurance principles, partly on purely humane considerations, substantial justice is rendered to every class. While passengers are taxed only to compensate passengers, the companies extend their provision to EVERY class of the injured, and thereby inaugurate a truly great humanitarian institution."

The plan here unfolded, has met with the most cordial sympathy from leading members of the profession in other States, and we sincerely hope such an excellent project may be speedily crowned with success. Other States will not be slow to follow an experiment which promises to do so much for the welfare of the travelling public.

SURGEON GENERAL'S OFFICE,
Washington City, D. C., Feb. 23, 1863.

MESSRS. EDITORS,—I am directed by the Surgeon General, to forward the enclosed circular, with the request that it may be inserted in the pages of the Boston Medical and Surgical Journal.

I have the honor to be, very respectfully,
Your obedient servant, J. H. BRINTON, *Surg. U. S. A.*

CIRCULAR TO THE MEDICAL PROFESSION.

Surgeon General's Office,
Washington City, D. C., Feb. 20, 1863.

The Surgeon General would remind the medical profession, that some months since a medical officer was detailed by the Department, to prepare the surgical history of the rebellion. It is intended that this history shall embrace, among other topics, the collected results of the gun-shot injuries of the war, and of the operations performed for their relief.

Many facts bearing upon these subjects can be obtained by an examination of the returns of the various military hospitals; and explicit orders have been issued to the surgeons in charge as to the manner of reporting. Yet it is found practically that the results of all cases cannot be included in these reports. In every depot of wounded, and after every action, there exists a large class of injured men, who in various stages of convalescence, pass from the observation and treatment of the military surgeon, and are lost sight of by the medical department. These patients are those who are either furloughed or discharged the service, by military authority, before their treatment is entirely terminated. Under such circumstances, all past records of these cases are rendered valueless from the absence of a positive knowledge of their results.

To remedy this evil, the Surgeon General appeals to the profession of the country, and solicits their coöperation. He would ask every physician and surgeon who may be called upon to treat any officer or soldier wounded in service, carefully to note the results of the case, to record his observations, and, when the case shall have terminated, to transmit a copy of his observations to the Surgeon General's office.

The following form is suggested:—

Date of Communication.

Character of Injury.

Name and address of Physician forwarding it.

	Where wounded and date.	To what hospitals sent.	What Operations, &c. performed.	By whom performed.	Date of Furl. or Discharge	Pres. condition of Patient, Account, Treatm. Result.
Patient's Name and Age. " Rank. " Reg. and Co. Postal Address.						

In all cases of recovery after *excisions* of bone, the amount and character of the movements executed by the patient with the injured limb should be accurately described. Where amputation has been practised the character of the stump should be noted, especially when the operation has been performed through an articulation. In cases of compound fracture, the point of fracture should be stated, as also the degree of efficiency of the limb remaining after treatment. In compound fractures of the femur, the amount of shortening should be measured, and the strength and usefulness of the limb described.

In those patients in whom injuries of the skull have occurred, or upon whom the trephine has been applied, the mental and physical conditions should alike be dwelt upon.

In thus placing before the profession the objects he desires to obtain, the Surgeon General trusts that he will meet with active coöperation. By the means above indicated, much information that is valuable may be collected, and the interests of the science of Surgery materially advanced. W. A. HAMMOND,

Surg. Gen. U. S. A.

Medical Journals will please copy.

WE have been permitted to print the following extract from the records of the Medical Board of the Mass. General Hospital, which will meet with a cordial response from the profession at large.

"The Secretary having mentioned that letters had passed between the Surgical Members of this Board and Dr. Townsend, on occasion of his retiring from a service of twenty-four years, and by unanimous request having read these letters, on motion of Dr Bowditch, it was unanimously voted, that the sentiments of respect and regard expressed in the letter to Dr. Townsend being entertained by all the members of this body, they gladly avail themselves of this opportunity of putting on record how highly they appreciate the many good qualities so properly set forth in the letter which has just been read, how sorry they are to part with their late associate, and how hearty are their wishes for his future prosperity and happiness."

MASSACHUSETTS MEDICAL COLLEGE.—The Annual Commencement for the conferring of medical degrees will take place at the College on Wednesday, March 11th. The exercises will commence at 11 o'clock, A M., with a prayer by President Hill, after which graduates will read selections from their dissertations. The degrees will then be conferred by the President, and the whole will conclude with an address by Prof. Henry I. Bowditch.

The Corporation and Board of Overseers of the University will be present on the occasion, and the Fellows of the Massachusetts Medical Society, all medical students, and all persons who may be interested in medical science, are hereby respectfully invited to be present.

D. HUMPHREYS STORER, M.D.,

Wednesday, March 5, 1863. *Dean of the Medical Faculty.*

OHIO STATE ASYLUM FOR THE EDUCATION OF IDIOTIC AND IMBECILE YOUTH.—Dr. G. A. Doren is superintendent of this Institution, which was established in 1857, and appears to be steadily growing in usefulness. The following extract from the last report indicates the success met with :—

" Fifty-seven children have been under instruction during the year ; marked improvement has been observed in all. Aimless and involuntary movements have been replaced by those in response to the will, while the preliminary cultivation of habits of attention, order and obedience, in the school-room and gymnasium, has resulted in productive labor in the garden, shop and sewing-room, as well as in the efficient performance of regular domestic duties.

" Of the whole number under instruction, twenty-eight read and write ; twenty-four appreciate, in some degree, the relation and significance of numbers ; eleven boys have learned to work in the garden and shop ; fifteen girls sew neatly—ten of this number being able to make a garment. They have also been taught to perform appropriate domestic duties."

AMERICAN MEDICAL ASSOCIATION.—An unavoidable delay in the issue of this number of the Journal enables us to insert in it, but without comment, the following official notice, just received :

Office Medical Examiner, Chicago, Feb. 20th, 1863.

The next regular Annual Meeting of the American Medical Association will be held in the City of Chicago, Illinois, on the first Tuesday in June, 1863. Every permanently organized State, County and Local Medical Society is entitled to send one Delegate for every ten members, and one additional Delegate for a fraction of more than half that number. Medical Colleges, and Hospitals containing over 100 beds for the sick, are entitled to two Delegates ; and all other permanently organized Medical Institutions are entitled to one Delegate each.

The Committee earnestly desire a full attendance from all parts of the country. By order of the Committee of Arrangements,

N. S. DAVIS, *Chairman.*

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, FEBRUARY 28th, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week	42	50	92
Ave. mortality of corresponding weeks for ten years, 1853—1863,	41.1	41.0	82.1
Average corrected to increased population	00	00	93.49
Death of persons above 90	1	0	1

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
15	9	3	6	0	1	3	2

NOTICE.—The Title-page and Index of Vol. LXVII. will be sent to subscribers with the next number of the Journal.

DIED,—In Randolph, 5th inst., Dr. Ephraim Wales, aged 75.

DEATHS IN BOSTON for the week ending Saturday noon, Feb. 28th, 92. Males, 42—Females, 50.—Accident, 4—anæmia, 1—apoplexy, 1—congestion of the brain, 2—disease of the brain, 2—bronchitis, 2—consumption, 15—convulsions, 5—croup, 9—cynanche tonsillaris, 1—debility, 1—diarrhœa, 1—diphtheria, 2—dropsy, 2—dropsy of the brain, 4—dysentery, 1—erysipelas, 1—scarlet fever, 3—typhoid fever, 3—hæmoptysis, 1—disease of the heart, 3—infantile disease, 6—disease of the liver, 1—congestion of the lungs, 1—disease of the lungs, 1—inflammation of the lungs, 6—marasmus, 1—old age, 2—paralysis, 1—premature birth, 1—rheumatism, 1—tumor (stomach), 1—unknown, 5—whooping cough, 1.

Under 5 years of age, 43—between 5 and 20 years, 10—between 20 and 40 years. 19—between 40 and 60 years, 12—above 60 years, 8. Born in the United States, 72—Ireland, 19—other places, 1.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

Vol. Lxviii. Thursday, March 12, 1863. No. 6.

CASE OF EXTENSIVE CARIES OF THE HIP-JOINT, WITH DISEASE OF THE KIDNEYS.

By A. Ruppaner, M.D., Boston.

[Communicated for the Boston Medical and Surgical Journal.]

On the evening of December 15th, 1862, I was called to see Mr. S. S., of Roxbury, aged 47, who was represented to be suffering from an attack of sciatica. On arriving at his residence, I found Mr. S. lying upon a couch, and in severe pain. He gave me the following history of his case: About six weeks prior to my visit, he had an attack of slow fever; such, at least, was his complaint called by a homœopathist who attended him; which fever, after confining him more or less to his house for four weeks, left him in a very weak state.

During the latter part of this illness, four weeks from this date, he was attacked with excruciating pain in the right hip-joint, extending down the course of the sciatic nerve to the knee-joint, and from thence to the toes. At times he would suddenly suffer from a paroxysm of pain, which he called "cramps," during which his limb would be involuntarily bent, and any motion of the affected member be impossible. To stand upon the limb was out of the question. In consequence of suffering for four weeks, day and night, without cessation, Mr. S. was completely reduced in strength when I saw him; pulse 98, feeble; appetite good, bowels regular, temperament rather nervous, yet hopeful. I discovered no symptom of disease in any other part of the body. A peculiar dark hue of the countenance attracted, however, my attention; but there was no symptomatic evidence of any renal disease. The language of Mr. S. at the time, was—"If it was not for the pain in my limb, I would feel perfectly well." No special attention had thus far been directed to treatment, except the external use of liniments, as the complaint had not been considered of sufficient consequence by the late attending homœopathist to merit any active treatment.

With considerable trouble, and still more pain to himself, the patient by my direction moved from the couch to his bed; and upon examination, I soon satisfied myself that Mr. S.'s real complaint was disease of the hip-joint, a high state of inflammation, possibly, accompanied with disorganization of the cartilages and bone composing the joint. The sciatica was merely a concomitant symptom, resulting from pressure of the surrounding inflamed tissue upon the sciatic nerve. The temperature around the joint was higher than usual; pressure produced severe pain, as did also the least motion of the limb in any direction, but particularly pressure upwards against the acetabulum—a symptom of the utmost importance in this disease as distinguished from sciatica—whilst pressure upon the sciatic nerve did not cause any pain whatever.

By my direction the patient was laid upon a hair mattrass, his limb extended and kept undisturbed. My next object was to relieve the severe pain; and for this purpose I injected ten drops of Squibb's liquor opii comp. near the joint, and then left the patient for the night.

December 16th, 9, A.M.—Passed a very comfortable night; slept better than for several weeks past, and has been free from pain till morning. The injection produced no ill effects. Desires to have it repeated. This done, farinaceous food was ordered, and such directions given as the nature of the case demanded.

17th to 20th.—Has been mostly free from pain, under the use of subcutaneous injection, and seems to gain strength by the use of tonics and good food.

21st.—Pain having returned, and the inflammatory symptoms increasing, I ordered emplastr. cantharid., sufficiently large to cover the whole joint and the tissues around for about three inches.

22d.—Can move his limb with less pain.

23d to 30th.—Has been steadily gaining; can move tolerably well from his bed to the couch, and sits up in a chair from twenty-five to forty minutes.

31st.—Is worse; pulse 110; is quite low spirited, not so much from pain, but, as the patient says, because he "cannot help it." For the first time, to-day, since his illness, he has been unable to empty the bladder. Is relieved by the catheter.

1863. January 1st to 4th.—Has not suffered much pain for the last four days, being relieved by blisters and subcutaneous injection; but the dysuria is increasing. Attempted catheterism, but without success, the patient being very nervous. The free use of barley-water and other appropriate remedies produced a free discharge of urine, however, during the night.

5th.—Patient is quite restless this morning. Pulse 118, bowels irregular, tongue clean, urine scanty. Complains of severe pain in the hip-joint, which is, however, relieved if his limb is placed in a certain elevated position. I resolved to pack the entire limb in sublimed sulphur.

6th.—Passed a very comfortable night. Thinks the sulphur has a very soothing effect. Pulse 108; appetite as usual; no dysuria; bowels active.

7th.—The breath, the perspiration, the character of the discharges from the bladder and rectum, give evidence of the absorption of the sulphur into the system. Patient is entirely free from pain; pulse 116; appetite good; bowels regular. The subcutaneous injections were discontinued from the time when the sulphur was applied.

8th.—No material change since yesterday, as far as the pain in the limb is concerned; but the patient appears to be drowsy and inclined to sleep. Pulse 116; appetite moderate; bowels inactive; urine scanty and high colored. The sulphur is removed from the limb.

9½, P.M.—Has had no pain all day, but continues to be drowsy and indifferent to everything about him. Pulse 120; no headache; bowels acted by means of medicine; bladder empty.

9th, 3, A.M.—Am aroused by a messenger, requesting my immediate presence at Mr. S.'s house. Arrived there, for no time was lost, I found the patient awake, but with the exception of being more nervous than when I left him at 10 o'clock the same night, I observed no marked difference in his condition. Pulse 120; skin quite dry; tongue clean; free from all pain. Desires to sleep. After conversing with him for some time about his condition, I left him more calm, with the promise of an early visit in the morning. No change was made in the treatment, no medicine ordered.

9, A.M.—Is awake and like himself, except drowsy; free from all suffering. Pulse 124; tongue clean; skin dry; bowels inactive; no urine passed during the night. But the nurse showed me about four ounces of a greenish, viscid fluid, which Mr. S. had vomited between 6½ and 8 o'clock, without any distress whatever. In appearance this fluid resembled bile. A deliberate examination of the abdomen and other organs (so far as possible), revealed no symptoms of disease anywhere; there was not the slightest pain or even uneasiness, and, what was most remarkable, he did not lose his appetite, but tried to eat beefsteak as usual; no headache or cerebral disturbance; the mind as clear as in his most active days. Bismuth, chloroform and other remedies were ordered to relieve the vomiting, should it return.

7, P.M.—Much the same as in the morning, except that the patient vomited up during the day, at various intervals, nearly two pints of the same green, viscid fluid. Has a great desire for cold water. Is free from pain everywhere; pulse 120, weak; mind clear; still hopes to get better. Counter-irritation over the whole abdomen, and small pieces of ice by the mouth, were my last directions.

10th, 6, A.M.—Am sent for. Mr. S. has thrown up (for it can hardly be called "vomiting," as the fluid leaves the stomach without any effort whatever on the patient's part) at least five pints of the same fluid during the night. I witnessed several of these attacks. Says he feels weak; pulse 128; tongue slightly coated; passed little urine during the night; no pain in his limb, nor anywhere else. Careful examination again revealed nothing unusual to be traced to any vital organ; there was no soreness of the abdomen; no pain in the stomach; no complaint of pain or suffering in the region of the kidneys; no enlarged liver; bowels and bladder empty—and yet this incessant, inexplicable vomiting! I ordered lac sulphuris, mixed with syrup, to be freely administered. My apprehensions increased, as I saw inexorable death slowly but surely approaching, should this state of things much longer continue.

4, P.M.—Dr. Henry J. Bigelow saw the patient with me in consultation. Since morning, at 9 o'clock, at least four quarts of the same fluid have been vomited. Patient is very weak, as all food is now rejected by the stomach. Pulse 130, weak; tongue slightly coated; skin rather moist; mind perfectly clear; is, however, drowsy. Asserts distinctly, that he has no pain whatever in any part of the body. It was decided to apply counter-irritation to the whole abdomen, and emplast. cantharid. was at once ordered. Otherwise, no change was made in the treatment, and the ice and lac sulphuris were continued.

10, P.M.—Has continued to vomit since this afternoon, the quantity of fluid rather increasing than diminishing. Vomits about every eight or ten minutes. Remained with Mr. S. till after midnight, during which time I administered myself the ice and lac sulphuris, and succeeded in arresting the paroxysms once for an hour and seven minutes, and at another time fifty-seven minutes. Of all the remedies tried, sulphur did the best service.

11th, 6½, A.M.—A messenger requires my immediate attendance. Patient continued to vomit during the latter part of the night. The fluid fills two large bowls. He is much reduced; pulse 138, weak; he is still free from pain, and the mental faculties are undisturbed. The emplastr. cantharid. applied to the abdomen produced no irritation since yesterday at 4, P.M. His condition is getting more and more critical.

8, A.M.—Drs. H. J. Bigelow and N. B. Shurtleff saw the patient in consultation, but no change of treatment was deemed advisable. Ice and sulphur were administered freely; but it was evident that life was ebbing, and he took final leave of his family with a self-possession and an undisturbed mind that it is the privilege of but few to enjoy in their last moments. Mr. S. gradually sunk, till shortly after 3, P.M., he breathed his last.

Post-mortem, twenty-four hours after death, by Dr. Ellis. Present, Dr. N. B. Shurtleff, cousin of the deceased, Mr. Thomas Hall, Jr., medical student, and myself.

The brain was healthy, with the exception that the serum was more abundant than usual. The kidneys were of the natural size, somewhat lobulated and flaccid. The cortical substance was perhaps more opaque than usual, but this appearance, if real, was so slightly marked that it would have been overlooked had not the excessive vomiting excited suspicion that the case would prove similar to those reported to the Boston Society for Medical Improvement, April 8th, 1861.

On examining with the microscope a number of sections of the cortical substance of one of the kidneys, not a single healthy tubule was seen. They were either crowded with epithelium, or with minute granules and globules, such as marked the degeneration of the secreting elements. There seems, therefore, no good reason to doubt that a connection existed between the above lesion and the excessive vomiting which finally terminated the patient's life. The other organs, with the exception of the supra-renal capsules, were examined and found healthy.

The right hip-joint contained a little reddish fluid, but not enough to escape when the capsule was opened. The cartilage was entirely destroyed over a portion of the acetabulum, and a large part of the head of the femur. That which remained on the femur was quite thin, and in many places detached from the subjacent surface. Here and there, where no cartilage remained, the surface was covered with an extremely thin, broken, reticulated fibrous film, which was easily removed, and with it small fragments of bone. The synovial membrane around the neck was very much thickened, soft and highly vascular. This was also detached in places. The smooth external table of the denuded bone had entirely disappeared, leaving the red, soft, cancellated structure. A similar change had taken place in that which was still in contact with the remaining cartilage. A large portion of the head of the femur was deeply eroded, but the surface presented the same appearance.

The changes were such as belong to comparatively acute, progressive and destructive disease, no new formation of any kind being noticed except that indicated by the thickened synovial membrane.*

The following *résumé* of this case is worthy of notice:—

1st. The short period during which the patient was unable to use his limb—he being, at the longest computation, only eight weeks deprived of its use—and the strong evidence of acute, progressive and destructive caries of the hip-joint as revealed by the post-mortem examination.

2d. The existence of severe sciatica as a secondary symptom, and the importance of a correct diagnosis between the disease of the joint and idiopathic sciatica.

3d. The co-existence of destructive and fatal renal disease without any premonitory symptoms whatever of the approaching danger, until forty-eight hours before death.

4th. The complete relief the patient obtained from subcutaneous injection, for the time, when other remedies had failed to remove the pain; and the general amelioration that took place for three weeks in consequence.

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* The specimen, the upper third of the femur, has been prepared and is in my possession.

5th. The decided good effect of the external application of sulphur upon the painful limb.

6th. The good effect of lac sulphuris in controlling the continued vomiting.

7th. What were the chances of recovery for this patient, suffering from such rapid and destructive disease of the bone, had not renal disease suddenly put an end to his life?

PRACTICAL OBSERVATIONS ON, AND THE TREATMENT OF DIPHTHERIA, WITH ILLUSTRATIVE CASES.

By E. N. Chapman, M.D., Prof. of Therapeutics, Materia Medica, &c.

[Communicated for the Boston Medical and Surgical Journal.—Concluded from page 98.]

In concluding this article, that has been extended beyond the limits designed, I will not tire the reader with a resumé of the cases; but embody whatever deductions are derivable therefrom under the head of

THE TREATMENT OF DIPHTHERIA.

In the thirty-eight cases of diphtheria detailed above, this alarming disease is presented in almost every varied phase. With a singular uniformity the stimulating treatment—whether in the acute or chronic stage—that of excitement, fever and inflammation, or of prostration, paralysis, rheumatism or dropsy—had the same happy effect. In all conditions, that had a diphtheritic origin, it was uninterruptedly followed; since we only regarded the causation, not its manifestations—the root of the evil, not its offshoots—and directed our efforts to the removal of a special state of the blood. This state of the blood, which is prone to occur in scrofulous children, or adults reduced by disease or of feeble constitutions, in a certain endemic condition of the atmosphere, is marked by a diminished vital power; which being exalted by stimulants, the symptoms are checked, the inflammation subdued, the membrane removed, a rapid recovery effected and relapses prevented. In other words, this plan of medication is radical; strikes at the heart of the trouble; whereas most others, that have been proposed, are but an ineffectual warfare against symptoms. The blood, which is similarly affected in the mild or severe cases, in the first or later stages, only differing in the degree of its dissolution, alone claims our attention. Against this condition, before the disintegration is irreparable, we bring to bear the most powerful means in our hands, to buoy up the constitutional powers, and sustain the activity and energy of each function. The first link in this morbid chain being this retrograde movement in the vitality of the blood, when this is checked, fever, inflammation, hæmorrhage, exudation, collapse, paralysis, dropsy, &c., disappear, almost magically, from the simple fact that the cause has been rendered null and inoperative, and the prime pathological change removed.

Of the remedies that have been employed in diphtheria, two only have proved themselves in our hands worthy of confidence, with the exception, in the chronic stage, in favor of the salts of iron. These two remedies—alcohol or cinchona in one of its forms—are administered in such doses and at such intervals as to secure one effect—the fullest stimulation of the nervous and vascular systems. Either singly may suffice when the vital force needs but slight aid to maintain the integrity of the blood; but the two united have more than a double power, and call out the greatest possible amount of resistance; since the nerve centres and bloodvessels—the great life-factors—are exalted to the highest point. Alcoholic liquors, when given in such quantities and intervals, as to occasion and keep up a steady but not excessive excitation, not only quicken the functional offices of each organ, but act, more especially, on the nervous and vascular systems. They bring out the latent powers, arousing them when dormant and freeing them when oppressed by a load of morbific influences; and thus give, for the time being, the greatest energy to the entire organism. Herein, according to the views of many therapeutists, alone consists the value of this class of stimulants in any disease. The patient lives over the crisis, or the poison is spent or eliminated; and thus recovery becomes possible. This is but a partial estimate of the remedial action of alcohol; which not only produces the effects just mentioned, but others of much greater importance in the present disease—the increased vitality, cohesion and crasis of the blood itself. It is well known that the habitual use of spirituous beverages augments the blood-making process, renders the blood richer in all of its important constituents—the red globules, albumen and fibrin—and of a greater crasis; by which means, there arises an excess of organizable material, that often occasions inflammatory diseases in *bonvivants*. This condition is the opposite to that existing in the diphtheritic subject; whose blood has, invariably, been rendered poor by exhausting disease, or impoverished by the demands of increase and growth, as in the instance of children. These causes are intensified and rendered operative by a scrofulous or syphilitic taint.

It is a noteworthy fact, that, in my experience, the diphtheria never attacks those habituated to the use of spirits. This, if confirmed, may be more than a remarkable coincidence.

We, therefore, from clinical observations and therapeutical deductions, arrive at the practical conclusion, that alcohol is not only a stimulant to the system at large, but also to the blood itself, quickening its vital elaborations, and increasing its vital status; through which, a direct barrier is thrown in the way of the disease. In other words, the results produced by the disease, and by the alcohol in the blood, being directly opposite, they neutralize each other; and thus, the stimulant assumes in our eyes the position of a true remedy, a trustworthy antidote. Hence its medicinal power being not only remedial, but prophylactic, will prevent the extension of diphtheria in the other members of the family, as well as cure the one affected. This conclusion is a necessary sequence; if the pathology of diphtheria and the modus operandi of alcohol have been correctly appreciated.

In malignant cases of diphtheria, we might desire to avail ourselves of a co-operating remedy; of one, like quinia, that particularly excites the great ganglionic nervous centres; by which means, we should attain a maximum of power, and carry stimulation to the highest possible degree. The various preparations of the cinchona bark fulfil this indication; and, when pushed to the extent of causing tinnitus aurium, are our most potent nerve-stimulants. Their efficacy is shown in all diseases when the innervation is weakened, disordered or perverted; in fevers from malaria, in fevers from a blood-poison, and in a variety of morbid conditions attended with an exhausted or defective nervous energy. As a tenderness of the gums is a mark of the saturation of the system with a mercurial, so the ringing in the ears indicates that the brain is fully under the influence of cinchona. Both it and the alcoholic stimulant, whether used singly or united, should be given with regularity and in sufficient doses to obtain their full effects; and then the latter, in a lessened quantity, continued for two or more weeks after the disappearance of the disease and its sequelæ. From the outset to a permanent restoration to health, one, or perhaps both, of these remedies are to be continuously administered.

In the more tedious cases, that retain a hæmorrhagic tendency, the substitution of a sesqui-salt of iron for the cinchona might, for a time, be advisable, when the peculiar effect of the latter on the brain had been attained. These salts of iron, like the alcohol, increase the crasis and coagulability of the blood; as I have experienced in several instances of internal hæmorrhage; but they affect the body of the blood too slowly to be a trustworthy reliance in acute cases. Their action would be slight short of two or three days; whereas the progress of diphtheria brooks no delay. Indeed, one of my cases was attacked with the disease, although the persulphate of iron, in free doses, had been in use for hæmoptysis for more than forty-eight hours. At least fifteen drops of the muriated tincture, or five drops of the solution of the chloride or persulphate of iron, should be administered every third or fourth hour whenever we desire this peculiar change in the blood; but in chronic cases, with more time at our disposal, the dose may be less; since, usually, our main object is now to remedy the anæmia.

Most writers insist strongly on the importance of giving large quantities of animal broths to sustain the strength of the patient, and thus enable him to ride out the violence of the disorder. This, as a medicinal means, cannot but be erroneous in the early stages; since most of the patients are taken while eating heartily of animal food, and enjoying their usual health. We could not expect that nourishment, however concentrated, which did not prevent the accession of a disease, whilst the digestion was vigorous, can cure it when digestion, assimilation and nutrition are completely destroyed. The change of our food into the living structures is something more than its ingestion into the stomach or its absorption into the bloodvessels: and nutriment, unappropriated, can be but an incumbrance—a foreign element—which will be carried off by the kidneys with the effete matters. Most of my patients took little or no nourishment before convalescing, when it was directed for the same reasons that we order it in other ailments.

It is important to avoid close, hot, and badly-ventilated rooms, and secure a free circulation of air. As soon as practicable the patient should be taken out of doors, and no fear need be entertained of *catching cold;* the disease having no analogy with tonsillitis, pharyngitis or any other mucous inflammation whatsoever.

At the present time, the chlorate of potash seems to be the favorite of the hour; but it has, probably, no greater claims to our regard or any more solid foundation for its character as a *specific*, than iodine or cod-liver oil in the height of their fashion; when it was presumed that tubercles would be absorbed, cavities closed, and, in fine, phthisis cured by the marvellous efficacy of these remedies. Theory was the only foundation on which such expectations were founded; as it is, for the eulogiums lavished on this new wonder by its advocates. They, observing that the blood, removed from its vessels, is reddened when this salt is added, conclude straightway that we can, by its use as a medicine, supply a lack of substance in the lungs; that its elements being set free in the circulation, the oxygen of the salt will not only fill the place of that which should have been received from the inspired air, but by its excess act as a stimulant, as is observed when this gas is inhaled; and that the chlorine, by its antiseptic properties, will purify the blood, and thus the *materies morbi* will be neutralized.

My observations teach me that the chlorate of potash is perfectly unreliable in diphtheria; and, I am not sure its employment may not be injurious; certainly its irritation when gargled does harm, and if, when received into the blood it is decomposed, the free alkali will act as a liquefacient, by which means the crasis of the blood will be lessened, and the disease increased. All liquefacients, such as alkalies, mercurials, iodine, &c., are contra-indicated in a dyscrasia, like that of diphtheria, since their effects coincide with that of the disease; thus rendering the death of the patient, in all severe cases, more imminent. From experiments made by myself recently, however, it is more than doubtful whether any decomposition of the chlorate of potash takes place in the blood. I had under my care a young man, 21 years of age, who had had the morbus cæruleus from birth. The surface of the body was of a purple color, from the faulty aëration of the blood. I gave him ʒ ij. of the chlorate of potash in the twenty-four hours on three different occasions; but at each trial, after continuing the salt two or three days, it had to be discontinued from the irritation set up in the stomach and bowels. The blood was not reddened in the slightest degree, a fact brought to the attention of several medical gentlemen; but the urine was very largely increased, amounting to more than twice the normal quantity, and had a specific gravity averaging about 1010, and an acid reaction. The alkaline salts—those formed by vegetable acids for instance—that are known to be decomposed in the blood, are eliminated from the kidneys as carbonates; and were this the fact in the case of the chlorate, the urine would be alkaline. Since this experiment I have tried the chlorate of potash in the Clinic, where its diuretic action in most of the cases was equally well marked.

Hence we infer that the theory of the modus operandi of this salt has no real basis; and that, as far as we know, its efficacy lies solely in its stimulating the urinary secretion. It is an irritant, whether in the stomach or blood, and thus stimulates the functional activity of the organs it comes in contact with; but in a free dose this irritant quality produces inflammation; as happened in one of the cases related, in which two drachms of the salt caused violent gastritis. On two occasions I have known an ounce of the chlorate of potash taken in twenty-four hours, although in dilute solution, to occasion severe and protracted vomiting.

It is proper that a reason should be given for the use of the sulphate of cinchona in the later cases. For the past sixteen months I have employed this salt, in public and private practice, to the amount of several ounces, and attained results warranting the opinion, that it, equally with quinia, merits our confidence. In all cases demanding a nerve-tonic, even in intermittent fever, I have found the cinchonia not inferior to the quinia; and in three cases, in which the paroxysms returned one or more times after the use of the latter, the former was permanently successful. All practical physicians are aware of the frequent relapses in miasmatic fevers, unless at intervals, by renewals of the medicine, its peculiar impression on the nerve-centres is perpetuated; and also, it is well known, that, after several recurrences of the disease, the quinia wears itself out; and thus we are obliged to resort to arsenic or some other antiperiodic. The high expectations we had indulged in, regarding its specific qualities, are not realized; and perhaps the measure of our success falls short of that which attended the profession before chemistry discovered the active principles of the bark. In taking one constituent to the exclusion of the others, we incur the danger of lessening the efficacy of the medicine; and, it may be, discard those that would not only heighten its power, but prevent relapses by eliminating the *materies morbi.*

I have treated more than twenty cases of fever and ague with the sulphate of cinchonia, and find that ten or fifteen grains are sufficient to break the paroxysms. Its use was permanently successful in every instance, and relapses were infrequent, although designedly the medicine was not long continued or renewed. The cinchonia does not, even where twenty grains are given in the twenty-four hours for several days in succession, stimulate the brain, cause fulness, pain or tension in the head, or noises in the ears like quinia. In two cases there was slight tinnitus aurium, in one presbyopia, and in some a large increase of urine. Our experiments seem to show, that the impression of this salt on the nervous system is different from that of quinia; and that, having equal potency to subdue the paroxysms of an intermittent disease, it may, possibly, in addition, possess a property to prevent their return by elimination or otherwise. Probably the union of both salts in a prescription would be more efficient than either singly. The bark in substance, were it not for its bulk, would be preferable to any of its preparations; since thus we should administer all its constituents in their natural combinations. The fluid extract is all that could be desired; and, containing the virtues of cinchonia in a concentrated form as they existed in the bark, is, beyond a doubt, the most reliable.

In this JOURNAL for February, 1862, I had the honor to direct the attention of the profession to the pyrophosphate of iron, and to recommend it as a nerve-tonic; capable, by the phosphoric acid set free in the blood, of increasing the nutrition of the nerve-centres, and thus radically curing diseases arising from defects of innervation. Later experience has more than confirmed my expectations. The chronic forms of paralysis following diphtheria will be promptly amenable to the power of this remedy; which, as it adds a natural element to the nerve-centres, will be a stimulus more friendly than strychnia; that, acting only as an excitant, merely calls out the latent nervous influence.

It only remains for me to say a few words on the local treatment. This is of little efficacy; and should, in our opinion, be limited to demulcent drinks. Of the many external appliances, leeches, which are exhausting, and poultices or fomentations, which invite the blood to the point of their application, are among the most objectionable; but all, of whatever kind, are useless, if not prejudicial. All irritating, astringent or stimulating gargles increase the inflammation of the fauces, and thus afford a nidus favorable for the effusion of the membrane; but of the many kinds of local medication calculated to spread the membrane and extend it into the rima glottidis, none could have been devised more singularly appropriate than the various caustic substances in use, which not only augment the congestion already existing, but destroy the epithelium of the unaffected parts; and then, frequently, the membrane takes its place, for the same reason that it appears on the derma where the cuticle has been detached.

This, the most simple of all facts, seems never to have attracted any physician's attention. In one of my cases the membrane, two hours after an application of the tincture of iodine, was found extended over two thirds of the posterior surface of the pharynx.

In cases where the larynx is not sufficiently implicated to interfere in a serious degree with the aëration of the blood, the general treatment is still to be relied upon as offering the best chance to the patient; but, when at each inspiration there is a forced, though ineffectual, effort to expand the chest, and the skin has a purple tinge, tracheotomy, as a last hope, should be performed in patients over two years of age; whenever, other things being favorable, the exudation is thought not to extend into the trachea. Warranted as I am in the expectation that the membrane will not spread after the free use of stimulants for thirty-six hours, I should, in disregard of the statistics of the operation in which the after-treatment was faulty, still hope that in a few cases a cure might thus be effected. Under any course of medication the disease might not pass down the trachea for one or two days; but by the use of stimulants its progress may, possibly, be limited to the larynx, whence it would be detached and removed, as it is seen to be, from the fauces, whilst respiration in the meantime through the artificial opening was going on beneath the seat of the exudation. Every care should be taken to prevent the supervention of inflammation of the bronchial mucous membrane by having a moist, warm air surrounding the patient, by omitting any local applications through the tube, and by not attempting to bring up mucus or membrane on swabs or other contrivances that sometimes for this purpose are thrust into the trachea; since the exudation will be almost surely formed the moment the mucous membrane is inflamed.

From the extreme difficulty of regulating the air of the room, I would suggest the idea whether by some arrangement to the front of the neck or the outer mouth of the tube, after the plan of the respirators formerly in use, it might not be possible to secure constantly a warm, moist air, such as is always furnished to the lungs by its passage through the nostrils, and thus a greater success in the operation be realized.

Bibliographical Notices.

The Principles and Practice of Obstetrics. By GUNNING S. BEDFORD, A.M., M.D., Professor of Obstetrics, the Diseases of Women and Children, and Clinical Obstetrics in the University of New York; Author of Clinical Lectures on the Diseases of Women and Children. Illustrated by four colored lithographic plates, and ninety-nine wood engravings. Third Edition, carefully revised and enlarged. New York: William Wood & Co. 1863.

No lengthy notice is needed of a book which, like the present one, has come to its third edition in thirteen months from its first issue. Dr. Bedford's excellent work was very fully reviewed in our pages on its first appearance, and the signal success it has met with fully confirms our first favorable impressions. In fact, it may be said to have been taken up by acclamation as a standard authority on the subjects of which it treats. We learn from the preface to the present edition that it has already been adopted as a text book in nine of our Medical Colleges. As now published, it has been carefully revised and enlarged, and contains a lecture an *Phlegmasia Dolens*, which did not appear in the previous editions. It does not make quite so handsome an appearance as it did in the former issues, owing, we suppose, to the exorbitant price of paper at the present day.

A Theoretical and Practical Treatise on Midwifery, including the Diseases of Pregnancy and Parturition, and the attentions required by the Child from the period of birth to the period of weaning. By P. CASEAUX, Member of the Imperial Academy of Medicine; Adjunct Professor in the Faculty of Medicine of Paris, &c. Adopted by the Superior Council of Public Instruction, and placed, by Ministerial decision, in the rank of the Classical Works designed for the use of Medical Students, in the Maternity Hospital of Paris. Third American, translated from the Sixth French Edition, by WM. R. BULLOCK, M.D.. With one hundred and forty Illustrations. Pp. 971. Philadelphia: Lindsay & Blakiston. 1863.

IT certainly requires considerable courage in a publisher to print another full treatise on Obstetrics at the moment when Dr. Bedford's admirable work is on the summit wave of popularity; but the established reputation of that of M. Caseaux gives it an authority which saves the undertaking from the charge of rashness. Among the new features of the present edition are the Sixth Part, of between forty and fifty pages, on the hygiene of children from birth to weaning, a detailed account of cephalic version by external manipulation, and an appendix on the use of anaesthetics in labor. On this last subject the author speaks with excellent judgment, although his use of chloroform as the agent makes him more timid in the employment of an anæsthetic than he would be were he to adopt the incomparably safer one generally used here, and which was the first employed for this purpose. But the day will come, we hope, when considerations of convenience to the operator will not, even in Europe, outweigh the many other considerations which so strongly commend sulphuric ether to us as the only proper anæsthetic. M. Caseaux's work is of special interest as giving us what may be considered as the French practice of midwifery at the present day, and no obstetrical library therefore can be complete without it. The present edition is beautifully printed and well illustrated.

IN the *Indiana Hospital for the Insane*, for the year ending October, 1862, there were under treatment 500 patients. Discharged restored, 114; discharged improved, 26; discharged unimproved, 47. Died, 14. The Institution is represented as being in a prosperous condition.

Army Medical Intelligence.

Health of the 45th Mass. Regiment.

To the Surgeon-General. Newbern, N. C., Feb. 28th, 1863.

Dear Doctor,—I take the advantage of the occurrence of the end of a month, at which time a consolidated statement is made out to the Medical Directors of the Departments of the Army, to write you concerning the health of the 45th Mass. Regiment, here stationed. I sent you an account of the killed and wounded in the battles of Kinston and Whitehall, in December last; 5 or 6 have since died of wounds there received.

In the month of January, a disease appeared in our camp, having the symptoms of meningeal inflammation of a most intense character. We had 5 cases, all fatal, and 4 within thirty-six hours; the fifth lingered till the fourth day; 3 died in camp and 2 in general hospital. The strongest men were taken, and without premonity symptoms, other than a chill and pain in the head and limbs, soon followed by cerebral disturbance, delirium and finally coma; no method of treatment has seemed of any avail—the antiphlogistic, antispasmodic, mercurial, internal and external revulsives, quinine and stimulants, have all been tried in vain.

The disease is, without doubt, malarial in its origin. The weather has been, as a general rule, warmer, wetter, and more changeable than usual; our camp, and others where the disease has prevailed, is on an immense barren plain, surrounded on all sides either by water, marshy woods or swamps; the regiments in barracks have chiefly if not entirely been the sufferers, while those in tents, in bivouac, and in the city, have been spared.

As this is not the time of year when malaria is ordinarily active here, I was unable to account for this disease, except from some cause existing in the barracks. These are constructed of pine, which was growing a month or six weeks before it was used as building material, and they are badly ventilated, crowded and insufficiently warmed. I have regarded these new barracks as containing in their *green wood the storehouses of malaria*, which, *intensified by insufficient ventilation* and crowding of the men, has been the cause of this disease. I believe this opinion is not that of the generality of the profession here, but I have as yet no reason to modify my first belief. As soon as the disease appeared, I caused every man going on guard to take three grains of quinine, with or without whiskey as he preferred, at night, and had an extra issue of coffee and bread served to the guard in the night, believing quinine the best prophylactic, and a full stomach calculated to resist any nocturnal morbific cause better than an empty one. For the last month the regiment has been doing guard duty in Newbern, and not a case of this cerebral disease has occurred in it

It has been called "congestive fever," but erroneously, I think; it differs in character, course and prognosis from the "congestive fever," a form of "bilious remittent," which prevailed here last summer. It is evidently a cerebral inflammation, with congestion in some cases, but as frequently *post-mortem* as during life, and the congestion in no way concerned in the rapidly fatal termination. Examination after death has amply proved that it is an inflammation of the serous membrane of the base of the hemispheres (chiefly) and the upper part of the spinal cord, with effusion of lymph at the base of the brain; no constant morbid appearances have been found in any other organ: the external cerebral and pulmonary congestions are, I think, produced after death, or at any rate have no share in the fatal result.

Since coming to Newbern, the health of the regiment has been excellent, the sick list averaging only 20 daily, with 6 in hospital, and most of these cases being coughs, colds, and muscular rheumatism, consequent on exposure to rain and at night on guard, and readily disappearing in a few days.

There are about twenty old and used-up fellows, who have been by military or medical fraud foisted on the regiment, who ought to be discharged, except that such ought to be made to suffer for enlisting merely for the bounty. One chap confessed that he had passed his 64th birth-day: there are ruptures, varicoceles, varicose veins, diseases of heart and old rheumatisms, which ought to have been excluded; but, being here, they must endure it for the period of their enlistment.

By a recent order here, regimental hospitals, as a general rule, have been abolished, and surgeons have been ordered to send their sickest patients to the general hospitals. This is, in my opinion, a mistake, fraught with danger and sacrifice of life. Allowing the general hospitals to be perfect in their kind, as far as external surroundings and internal arrangements and accommodations are concerned, I maintain that regimental medical officers will take better care of their own few sick with inferior accommodations, than hospital medical officers can of a great many sick, from numerous regiments in which they are not specially interested, and for which they feel less, if any, personal responsibility. A surgeon is more or less identified with his regiment, and must feel more interested than a stranger can be in the sick of his own command; he has more time to devote to each case, having less to take care of; he can exercise a stricter superintendence over the nurses and attendants, and can have things more his own way than in a general hospital; the sick are more contented and cheerful surrounded by their own comrades, and are more visited, encouraged and cared for by their company officers than they could be (or are, at any rate) in general hospitals. The latter are so crowded, and matters managed in such a wholesale manner, that private suffering occasionally has been endured, unnecessarily and uncomplainingly; the greatest good of the greatest number, and not the utmost attention to each individual case, must in hospitals, as in other public institutions and associations, of necessity be the rule of conduct. It is simply impossible for a medical officer who has a hundred men or more under his charge to give them the care and attention which he could bestow on twenty.

The evil does not cease here. A regimental *surgeon* cannot be, or, in most cases, is not, detached for hospital service; the *assistant surgeons* are selected, wherever there seems to be an available candidate; thus, the gravest cases, which must be sent to general hospitals, come under the care of those who, *cæteris paribus*, are generally much younger and less experienced men than those who are left in charge of the slightest cases in the regiment, which in most cases would get well without any treatment. Everything seems the reverse, in point of fact, of what it should be: the gravest cases have the least experienced physicians, and *vice versâ*—a system which, to the commonest understanding, seems the opposite of what should be pursued. Supposing that length of years brings experience, and experience superior knowledge in the treatment of disease, it must occur to every one that the present system must, or at least may be, pursued at some sacrifice of human life.

The dangers of this system are increased by the insufficient amount and variety of medicines and hospital stores allowed by the new supply table to regiments technically said to be "in the field," though in camp for months, with only an occasional expedition; such regiments need, but cannot obtain, the same medicines, both in amount and variety, that would be required in a post or other hospital having the same number of sick. For instance: having a thousand troops to take care of, because our post is not a permanent one, I am entitled to no citric acid, tartaric acid, aloes, bismuth, catechu, cubebs, buchu, conium, hyoscyamus, veratrum viride, iodide of iron, sulphate of iron, powdered liquorice for pills, whole flaxseed, magnesia, cod-liver oil, nitrate of potash, rhubarb, borax, sulphur, strychnia, wine, porter, a variety of instruments, books, and hospital furniture and stores—and such a small amount of other articles like tannin, alcohol, ext. colchicum, cit. iron and quinine, sweet oil, oil of turpentine, pulv. scillæ and bicarbonate of soda, that they are all used in less than one third of the time for which they are intended. I can, by special requisition, if the Medical Director see fit, get an increased supply, but such requisitions are discouraged by the Surgeon-General. In order to be sure of what I actually need, I have sent to Boston to purchase medicine[illegible] with our regimental fund—hoping in that way to keep my sick out of hospital, regimental or general. I think the necessities of the service will soon require a modification of the supply table. I write this to you, hoping your influence and advice might obtain what would be unattainable in other ways. Yours respectfully, Samuel Kneeland,

Surg. 45th Mass. Vols.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MARCH 12, 1863.

American Medical Association.—It is with much pleasure that we would again call the attention of our readers to the notice of the Chairman of the Committee of Arrangements of the American Medical Association inserted at the close of our last week's editorial matter. We believe the committee has acted wisely in this matter; indeed, we see no more propriety in any longer delay than there would be in advising against another session of the National Congress until the rebels had signified their desire to be admitted to their former seats in that body. There can be no doubt as to the feeling of our Southern professional brethren towards the Association. They are as much opposed to union upon a common ground of science as upon a political basis. They leave us in no uncertainty; they openly declare their independence of us in religion, in medicine and in literature, as well as in affairs of government. They will have nothing in common with us; the same madness affects them all. There are, however, those among us, who, notwithstanding this voluntary refusal upon their part, in spite of the courtesy thus far shown them, of all connection with us in future, would even now wait until peace comes before calling another meeting of the National Association. Is there a physician in the Northern States who desires or dreams of a probable peace until the supremacy of the National Government is again asserted over all its lands and people? Even then, can we expect for many years to see our Southern brethren ready to forget the failure of their proud hopes and to meet us in a spirit of peace and re-union, even in a calm scientific association? We fear that sectional animosities will be still stronger after defeat than now, and that the National Association will call to its meetings but few of its former Southern members, who are now so unanimously opposed to the continuance of our common country. We cannot shut our eyes to the truth, and trust blindly that better days and feelings are to come. We cannot wait, we are called to act in the present and for the best interests of our profession throughout the country.

The passions of bad men should never be allowed to interrupt the progress of humanity and science. We still have a National Association. Its government, its objects and its importance are the same to-day as when it was founded. There may be Southern societies formed in opposition to it, as there have hitherto been Southern and Northern State Societies, but they can never take the place nor materially detract from the importance and dignity of the general Association.

We are this very moment feeling the need of a more close intimacy between the various sections of our country. Politicians, in full sympathy with the base purposes upheld by the very men in consideration of whose feelings we have too long shown a delicacy unasked for and unappreciated, are endeavoring to sow the seeds of jealousy among those of us who have hitherto recognized no geographical individuality of interests. There could be no jealousy were there more fellowship between us. Sectionalism can only be fostered among strangers. In past years there have been very kindly interchanges of visits between the physicians of the extreme East and West on the occasions of the annual meetings of the general Society, and we are sure that a renewal of these mutual courtesies will do much to courteract the evil efforts of disloyal and unprincipled politicians. Our country has become so vast that we shall soon know as little of one another as if an ocean separated us, unless we recognize and sustain some common interest. The commercial traveller is not always the best representative of the communities between which he passes to and fro, and if we would keep alive the natural affection, which now exists between us, we should encourage every occasion like the present which brings together educated and honorable men from all sections of our common country. We must take each other by the hand oftener and look into one another's face and feel that we are really brothers, and not allow lying partizans and heartless demagogues to say that we are not so, in so bold and frequent a manner that we hardly escape believing them in spite of our better judgment.

It is not in a political point of view only, however, that we consider the revival of the Association as a matter of so much importance at the present time. Next to our country our art is to be cherished, and did we ever feel the necessity of some general regulating power at work it is at the present time, when so many new phases in our professional life have been developed by the war, and so much need has been experienced of the utterance of some powerful voice to correct the errors of inexperience and inefficiency. Have we not remained culpably inactive and allowed humane men of other professions to step before us in the path which should have been our own? Has not the United States Sanitary Association been doing the work which, in part at least, properly belonged to our National Association? Have we not even been indebted to it for professional instruction and the reform of abuses in our own branch of the service? There are still, however, many important reforms which require the powerful influence of such a body as the National Association to be pushed to their accomplishment, and it is to these that its attention first of all should be directed. We cannot at this time refer to the many other important matters, such as a uniform and improved standard of medical instruction, the foundation of schools of military surgery, &c., which so imperatively demand the immediate attention of the Association, but we trust every Society throughout the country will see that it is fully represented at the coming meeting at Chicago on the first Tuesday in June.

Dissection of a Hottentot.—At a meeting of the Boston Society of Natural History, the President, Dr. Wyman, gave an account of the dissection of a Hottentot, who recently committed suicide in this city:—

"The subject was a young and healthy adult, who came to his death by suicide. The chest was well formed and prominent, the shoulders were well made but not broad, the loins very hollow, the hips narrow, the thighs full and feminine, and the calves slender. There was no beard, no hair in the axillæ or on the pubes. The ears were well formed, but the lobule was quite small. The web between the fingers was more extensive than usual, and gradually increased in breadth from the index to the little finger, where it reached as far as the joint between the first and second phalanx.

"Height of the body, 65½ inches; spread of arms from tip to tip of middle finger, 66; from top of head to top of trochanter, 29½; from top of trochanter to sole of foot, 36; breadth of shoulders, 13; breadth of waist, 9½; breadth of hips through trochanters, 11¼; length of arm from acromion, 30½; length of thigh from trochanter, 18; length of leg from top of tibia to sole, 18; length of hand, 7¼; Length of foot, 9.

"From a comparison of the above measurements it will be seen, that while the height of the body and the spread of the arms are almost exactly equal, and thus conform to the standard of a well-proportioned man, the legs are disproportionately long. The tops of the trochanters, instead of being in the middle of the whole height, are five and a half inches above it.

"The brain weighed 3 lbs. 2 oz. av., which is about the average weight of a European brain. There are no weights of the brains of Hottentots given in the tables of the comparative weight of the human brain. Dr. Morton gives the measurements of the three Hottentot crania, the average capacity of which is 75 cubic inches. A cubic inch of brain is estimated to weigh 259.57 grains, and this multiplied by 75 would give, as the whole weight, about 2 lbs. 12 oz. av."

FOREIGN INTELLIGENCE.

THE University of Jena has experienced a great loss within a few days. Prof. Lehmann, the renowned chemist and one of the first authorities in his specialty of physiological chemistry, died on the 6th of January, while yet in the prime of life. He had only been connected with the University eight or nine years, and was highly esteemed both as a lecturer and practical instructor.

Among the seven physicians who, on the 29th of December, received the Monthyon Prize of the French Academy of Sciences, were Professors Lebert and Frerichs.

The *Wiener Med. Zeitung* reported a case some months ago, in which a portion of the pancreas was voided through the intestine and found in the fæces. Contrary to all expectation, the patient has completely recovered within the last fortnight, and is about to return home.

Oppolzer has acceded to the request of the Vienna students that his bust should be executed in marble.

Prof. Hebra has been elected corresponding member of the Belgian Royal Academy of Medicine.

The *Presse Méd. belge* gives two cases, in which Laugier had employed baths of oxygen gas in senile gangrene with the most favorable result. He inserts the affected part in an ox-bladder, which is connected by a stop-cock and flexible tube with an oxygen apparatus. The bath is used an hour daily. In one of these cases, that of a man 76 years old, with a slough upon the great toe and several livid and painful spots upon the other toes and the back of the foot, the severe pains disappeared after the employment of the bath five days, the affected portions assumed a natural appearance and the sensibility returned. Subsequently the slough fell off, the wound healed quickly, and the patient completely recovered.

Prof. Jäger, the distinguished oculist, of Vienna, celebrated on the 12th December his 50th "Doctorjubiläum." The Royal Danish Society of Physicians elected him, the first foreigner, an honorary member.

One of the daily papers in Paris lately announced that Trousseau had been called in consultation to Garibaldi in Italy. The result of this false report was that the well-filled consulting room of this popular physician became at once empty, so that he was obliged to contradict the statement in the public journals. This unlooked-for honor cost the Professor nearly $1,000.

At a recent session of the k. k. Gesellschaft der Aerzte, Prof. Pillwax stated that canine rabies, lately very prevalent in Vienna, had considerably decreased. The number of dogs affected in all was 33, of which 6 had raving, the others quiet mania. In this century the disease has been four times epizoötic: first in 1814–15, secondly in 1838, '39, '40 and '41, the third time in 1848, and lastly in the present year. In 1841 145 cases occurred, an unusually high number. Thirteen persons only were bitten by the above 33 dogs. With regard to the contagiousness, experiments in inoculation had proved that both the saliva and blood of affected dogs are contagious, and to such an extent that the saliva of the bitten dog may produce the disease in another by inoculation. Prof. Pillwax is of the opinion that a peculiar specific contagion in the atmosphere produces the disease, though many deny the existence of this contagion, and believe that it is only transmitted by biting. He had inoculated three dogs with the saliva and blood of the boy, who had recently died of hydrophobia in the Hospital, which were still under observation, but as yet had exhibited no signs of rabies.

At another meeting of the same Society Dr. Neumann spoke of the symptoms produced by the application of tar to the external skin, viz., oppression at the stomach, vomiting of a black fluid and discharge of black fæcal masses, and, when a third of the body has been tarred over, of dark urine smelling of tar. After repeated applications, however, or when applied to persons who have lain for a long time in Prof. Hebra's 'continual bath,' scarcely a trace of coloring is visible in the urine. After a long-continued use of the tar, a so-called tar-acne is often produced, which differs from common acne only in the dark color of the opening of the follicle. Dr. N. applied beech-tar to the healthy skin, and carefully followed the eruption from its beginning to its highest development, the acne pustule. It has been observed that persons who inhale for a long time atmosphere impregnated with tar, are affected with a similar eruption. He exhibited two laborers from a tar-factory upon whose lower extremities an abundant acne efflorescence was visible. Workmen even in manufactories where tar is used to smear the machines are affected with an acne eruption.

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, March 7th, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - -	41	38	79
Ave. mortality of corresponding weeks for ten years, 1853—1863,	39.0	40.9	79.8
Average corrected to increased population - - - -	00	00	90.98
Death of persons above 90 - - - - - - -	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
14	3	4	5	0	0	1	5

Notice.—Part 46 of Braithwaite's Retrospect was mailed from this office on the 7th inst. to the members of the Massachusetts Medical Society who have paid their assessment for the last year.

Books and Pamphlets Received.—Cazeaux's Midwifery, 3d American Edition. (Lindsay & Blakiston, Philadelphia.)—Medical Student's Vade Mecum, by George Mendenhall. (Lindsay & Blakiston, Philadelphia.)—Annual Report of the Adjutant General of Massachusetts, including Report of Surgeon-General for 1862.—Dr. Bronson's Address to the Candidates for the Degree of Doctor in Medicine in the Medical Institution of Yale College, Jan. 15th, 1863.—Report of the Trustees of the Mass. General Hospital for the year 1862.

Deaths in Boston for the week ending Saturday noon, March 7th, 79. Males, 41—Females, 38.—Abscess, 1—accident, 4—inflammation of the bowels, 2—disease of the brain, 1—bronchitis, 3—burns, 2—cancer (of the breast), 1—consumption, 14—convulsions, 1—croup, 3—debility, 2—diphtheria, 5—dropsy of the brain, 4—scarlet fever, 4—typhoid fever, 1—disease of the heart, 2—infantile disease, 3—intemperance, 1—intussusception, 1—disease of the kidneys, 1—laryngitis, 1—congestion of the lungs, 2—inflammation of the lungs, 5—old age, 2—peritonitis (puerperal), 2—premature birth, 2—scalded, 1—syphilis, 1—teething, 1—unknown, 5.

Under 5 years of age, 32—between 5 and 20 years, 8—between 20 and 40 years, 16—between 40 and 60 years, 12—above 60 years, 11. Born in the United States, 48—Ireland, 21—other places, 10.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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DIPHTHERIA IN THE BRITISH PROVINCES.

[Communicated for the Boston Medical and Surgical Journal.]

Messrs. Editors,—Your Journal of the 8th has just reached me in this remote portion of the civilized world, and in perusing it I have observed a few brief inquiries made, by an Ohio correspondent, in reference to the most efficient medical treatment of diphtheria. I am therefore incited to pen the following lines, as I have lately been remarkably successful in treating a number of very severe cases of that most dangerous and much-to-be-dreaded malady. Much has already been written on this subject, since the first appearance of the disease in North America, and I do not know that I can offer anything of very great value, or perhaps of any more importance than is already known by almost every member of the profession. The treatment of a disease of this nature cannot, however, be too much commented upon; and the experience of all is necessary towards forming definite and correct conclusions. Diphtheria is one of the most formidable diseases the medical practitioner can meet with in his daily rounds, and one of the most unsatisfactory to treat, as he cannot rely upon any internal treatment that has yet been suggested. I have learned, therefore, to regard the progress of a case of diphtheria with the greatest anxiety, and in but few instances have I felt justified in assuring the patient or friends of success in the treatment I adopt.

In your answer to your Ohio correspondent you state that "Boston has been remarkably exempt from its visitations," while surrounding districts have suffered much from its ravages. I would beg leave to add that this appears to be a peculiar feature of the disease. Some communities are more susceptible of its infectious influence than others. In the latter part of the year 1855 or beginning of 1856, diphtheria first made its appearance in this Province. At that time I was a student with a physician of very extensive practice in Halifax, and had an opportunity of witnessing the treatment of a large number of cases, many of which proved fatal. Thus a period of nearly eight years has elapsed since it spread through many parts of the Province, and the community in which I now reside has never been visited by it until within the last two months; although in the adjoining township it has, during the last two years, made its appearance several times. It is only within the last two or three years that the disease was first noticed in the Island of Cape Breton. The first cases appeared at Louisburg, the old French capital, situated about thirty miles from this place. Nearly every case proved fatal, as there was no medical attendant in the community, and the patients were badly nourished and ill cared for. A few months after, the disease disappeared from that place, and has not since returned. I am acquainted with many localities in this and neighboring counties where the disease is altogether unknown; while there are other communities which have scarcely been free from its presence for several years.

Three weeks since, I had on my list fifteen cases of the very worst form of the disease, every one of which is now either convalescent or completely recovered. I shall take the liberty of citing one or two of these cases.

Mrs. F., aged 61, a strong, robust and generally healthy woman, on the morning of Dec. 22d, complained to her family of slight soreness of the throat, and a feeling of lassitude. At 2, P.M, was suddenly attacked with dizziness and fainting. I was called immediately, and when I reached the house she was recovering from a state of syncope; the pulse was extremely weak and there was great pallor of the countenance. After using the usual remedies, she was very shortly restored to complete consciousness. I then examined the throat, but could perceive nothing except slight redness of the mucous membrane lining the soft palate, tonsils, and fauces; however, as much pain and uneasiness about the throat was complained of, I ordered hop fomentations to be applied externally, and a saturated solution of the chlorate of potash to be used freely as a gargle every two or three hours. I also prescribed the sesqui-carbonate of ammonia in ten-grain doses, and a tablespoonful of brandy, to be given alternately every hour. At 7, P.M., I visited the patient again, and found the pulse and general appearance much improved; the tonsils and uvula somewhat swollen, and some difficulty in breathing. Applied a solution of the nitrate of silver to the tonsils, &c.; ordered brandy and ammonia to be given every two hours, alternately, through the night.

The following morning, on examining the throat, I found the uvula and right tonsil much swollen, and thickly coated with the pseudomembranous deposit peculiar to diphtheria. The fauces were of a very dark color, the tongue covered with a dark fur, and the lips parched and dark. The pulse was quick and feeble, and the patient complained of great debility. The skin was hot and dry, and the febrile symptoms generally were well marked. Pains through different parts of the body and extremities were complained of, and some difficulty in walking experienced. I ordered half a pint of beef tea and half a wineglassful of brandy to be given every three hours; carbonate of ammonia every two hours. Ten grains of the nitrate of potash, with six grains of Dover's powder, to be given every four hours; and the free application, to the tonsils and fauces, of the solution of the nitrate of silver (one drachm to the ounce), every six or eight hours, and the constant use of the gargle before named.

Third morning, patient much worse; all the symptoms aggravated; strength sinking; deposit had extended over a quarter part of soft palate, and there was great difficulty in swallowing, although very slight difficulty in breathing. Ordered a tablespoonful of castor oil to be given immediately, and if this did not operate in four or five hours, to be repeated. Brandy to be given every two hours, and as much nourishment in the shape of beef tea, &c., as the patient could be urged to take. The other treatment to be continued as above, excepting that the nitrate of potash and Dover's powder were to be given every six, instead of every four hours.

The fourth morning, I found that the patient had rested better during the night: there was a gentle moisture of the skin, and the tongue was not so dry and dark as the day previous. The membranous deposit did not adhere so tenaciously, and could be scraped off with the swab, in many places, leaving a raw, bleeding surface beneath. Although there was some improvement in the symptoms generally, there was greater debility, and the pulse was so feeble that I feared the patient would sink from exhaustion. Ordered the brandy and ammonia to be given every hour until I saw patient again. In the evening the pulse had improved, and the symptoms of sinking were not so marked. The brandy was then ordered to be given every two hours. After this, the deposit separated from the mucous membrane, the symptoms subsided slowly, and the strength gradually increased; the above treatment, however, being continued for several days.

Several weeks elapsed before the patient could walk about the house as formerly, and before she felt her usual health return; indeed, she has not yet recovered her former strength and healthy appearance, although she is quite well.

On the 27th of December, I was called to see Lucy L., aged 11 years. I found she had been so ill as to be confined to bed for several days, complaining of headache, pains in the back and loins, nausea and vomiting, and debility. The skin was hot, the pulse quick, the tongue loaded with a dark coat, and much thirst. The mother of the patient had supposed the complaint to be nothing more than the epidemic of influenza, that was at this time prevailing in the neighborhood, and had accordingly been treating it with a few simple domestic remedies. I examined the throat carefully, but discovered nothing except a dark-red appearance of the mucous membrane. On examining the chest, I found the bronchial mucous membrane in a high state of congestion. I ordered a tablespoonful of brandy to be given every three hours, and beef tea to be given freely. A mustard poultice was applied over the chest. Nitrate of potash and Dover's powder were prescribed, and cooling drinks ordered.

28th.—I found the patient weaker: had rested poorly during the night; much delirium, and a tendency to stupor. Cough troublesome, and some difficulty in breathing. Ordered mustard to be repeated to chest. Prescribed a mixture, containing ipecac., tr. opii, camph., spts. eth. nit., and acet. scillæ. Brandy and beef tea to be continued.

29th.—Greater prostration of the system; epistaxis; diarrhœa; delirium; lips and tongue parched and cracked; and, in fact, all the symptoms of typhoid fever. The nausea was so great, that it was with the greatest difficulty the patient could be urged to take even a teaspoonful of beef tea, and very frequently it was thrown off again immediately.

30th.—Some improvement was noticed; had slept some; less delirium, &c. I had been careful to examine the throat every time I saw the patient, and on this day noticed some congestion, and swelling of the tonsils and uvula; noticed, also, that the patient had much difficulty in swallowing. I ordered a sinapism externally, and applied solution of nitrate of silver internally. Brandy and ammonia to be given frequently.

31st.—One tonsil, uvula and part of soft palate, thickly coated with the membranous deposit. Extreme debility. Other symptoms much improved. More nourishment was taken, and retained. Throat well swabbed every three or four hours with dilute muriatic acid (one drachm to an ounce of water). Nitrate of silver to be applied every eight hours. Brandy to be given every two hours, and ten grains carb. ammon. every hour.

January 1st.—Deposit does not adhere so tenaciously; portions of it can be rubbed off with the swab, leaving a raw, bleeding surface beneath. Tongue and lips cleaning nicely. Patient so extremely weak that the nurse assured me she had several times to listen to the chest to ascertain whether she were breathing. The patient continued in this state for three or four days, and at times her friends thought she were dying. When thus weak, the brandy was given every hour; at other times every two hours, and as much nourishment as she could be urged to take. She fancied boiled milk, and it was allowed her; also a light boiled egg; and anything she asked for, I allowed her to have. During this time she was taking quinine and dilute sulph. acid, in every fourth dose of brandy. The applications were continued to the throat, &c., and about the fourth or fifth day after the deposit made its appearance, the parts looked quite clean and healthy. The strength has been gradually increasing, but the patient is still too weak to leave the house.

I have had several other cases exactly similar, where all the symptoms of typhoid fever preceded the diphtheritic deposit upon the throat, and my treatment has been the same as for typhoid. The best method, I believe, is to watch the symptoms closely and treat them as they appear. In treating diphtheria, the chief thing is to keep the patient from sinking; and this can only be done by the use of large and often repeated doses of brandy and ammonia. It is astonishing what immense quantities of brandy a patient suffering from this disease can bear, without creating much excitement in the system. From what experience I have had in the treatment of this disease, I firmly believe that if the system can be supported, Nature will throw it off without any further assistance, except it may be an occasional dose of castor oil, and the application of the nitrate of silver to the throat. The chlorate of potash has been very extensively used, internally, in many parts of this country, and apparently with success. I have only used it as a gargle, and cannot speak of its internal use. Calomel, in small doses, is also highly recommended, but I have not used it in any of the cases that have come under my care. With the exception of the local applications to the throat, and the constant use of stimulants, the more simple the treatment the better. Nothing can exceed in value the nitrate of silver, either solid or in solution, for local application. When the deposit adheres firmly to the mucous membrane, the free use of the solid caustic is best; but this should not prevent the use of the solution at the same time, as this latter reaches every part, which the former will not do.

The saturated solution of chlorate of potash makes a valuable gargle. To eight ounces of it I generally add one ounce of tincture of myrrh. I do not know that there is any better gargle than this. Salt and vinegar make a very good gargle in common cases. The following I have found excellent:—Tr. iodine, ʒ ij.; tr. myrrh, ℥ i.; aqua, ℥ iij.; M. I have used with much success diluted muriatic acid. Tinct. capsicum, and tr. ferri mur. have also been used with some success. Whatever gargle is used, should be used frequently—every two or three hours, if the patient is not sleeping. Children can seldom gargle their throats as freely as adults, and I prefer the swab or sponge probang in their cases. A piece of sponge, fastened on a stick or piece of whalebone, answers the purpose very well. In some cases a syringe may be used, and the gargle thrown with considerable force into the throat. In many cases, where there is much swelling and inflammation about the throat, fomentations of hops and sinapisms externally are very useful, but the latter should not be repeated often, as it may weaken the patient.

Too much value cannot be attached to the use of stimulants in the treatment of this disease; they are the sheet anchor, and should in all cases be given largely.

I observe, in a late number of your valuable JOURNAL, an excellent article on the use of oxygen gas in the treatment of typhus and typhoid; and I feel confident that it would be of equal benefit in the treatment of diphtheria. I have often thought of it, but never ventured to make the experiment. I shall do so now, however, the first opportunity I have. In it, I feel assured, we have an element that will meet the requirements of the case, and a much cheaper one than brandy for the poor man. Where deaths have occurred in this country from this disease, it has generally been among the poor, who were badly nourished, and could not afford stimulants.

I could make many more remarks upon the nature and treatment of this wretched disease, but I fear that I have already trespassed upon you, and will occupy no more space in your pages, than can conveniently be spared.

I remain, very truly yours,
C. Schomberg Elliot, M.D.

North Sidney, Cape Breton,
January 28th, 1863.

MEDICAL HISTORY OF THE SEVENTEENTH REGIMENT MASS. VOLUNTEERS.

Communicated to the Surgeon-general of Massachusetts by Surgeon Isaac F. Galloupe.

I.—Commanding Officers.—Col. Lyman Dyke, of the 7th Regiment Mass. Vol. Militia, was put temporarily in command of this Regiment upon the day of its formation (July 10th, 1861). John F. Fellows, Esq., of Chelsea, was commissioned as Lt. Col. on the 20th of August succeeding, and took command of the Regiment. On Sept. 2d, Capt. T. I. C. Amory, of the 7th U. S. Infantry, was commissioned as Colonel. He took, and continued in, command of the Regiment until the 4th of April, 1862, when he was relieved to take command of a brigade; thus devolving the command of the Regiment upon Lt. Col. Fellows, who has continued to hold it until the present time.

II.—Medical Officers.—Dr. I. F. Galloupe, of Lynn, was appointed Surgeon of the Regiment upon the 10th of July, 1861, and continued in charge of it till the 4th of April, 1862, when he was detailed to act as Brigade Surgeon upon the Staff of Acting Brig. Gen. Amory. He has acted in that capacity until the present time, but, at the same time, continues in charge of the Regiment.

Dr. O. Warren was detailed as Assist. Surgeon on the 17th of July, 1861, and upon July 25th he was relieved by Dr. I. H. Willard, of Boston. Upon the request of Col. Hinks, Dr. Willard was transferred to the 19th Regiment Mass. Vols., and his place filled by Dr. W. H. W. Hinds (then of the 19th Regiment Mass. Vols.). The latter has continued to serve in the 17th Regiment until the present time.

Upon the 15th of August, Dr. Ayres was appointed 2d Assistant

Surgeon. He was immediately detailed to take charge of the troops at Hatteras Inlet, and up to this time has done no duty with the Regiment.

III.—PLACE OF RECRUITING, &c.—The Regiment was recruited principally from the towns of Danvers, South Danvers, Haverhill, Salisbury, Amesbury, Newburyport, Salem, Gloucester, Boston, Lawrence, and Malden, in the County of Essex. The Regiment went into camp on the 10th of July, 1861, at Lynnfield, and was first mustered on the same day, by Capt. Marshall, U.S.A. Number of enlisted men, eight hundred and forty-two (842.)

IV.—MOVEMENTS OF COMMAND, &c.—The Regiment left the place of rendezvous upon the 22d of August, 1861, and arrived at Baltimore upon the 24th of August, and bivouacked the first night west of the city of Baltimore. Upon the 25th, went into camp at Stuart Place (so called). Upon August 31st, broke camp and marched four miles to McKinis, on the other side of the city. Upon the 2d of September returned to Stuart Place.

On the 16th of November, six companies (500 men) embarked at Baltimore to join the expedition under Gen. Lockwood, for the Eastern Shore of Virginia. The Regimental Surgeon was left at Baltimore in charge of the hospital and remaining four companies. The Assistant Surgeon accompanied the expedition. The troops arrived at Newtown, Md., Nov. 17th, at 12, M., and encamped in a cornfield, on the bank of the river, on low ground. Nov. 19th, marched to Drummondtown, twenty-seven miles; camped in a large cornfield, low ground. Nov. 26th, marched to Pongateague, twelve miles; camp on low ground. Nov. 27th, marched to Franklin, twelve miles; camp on higher ground, near a stream. Nov. 28th, marched to Eastville, thirteen miles; camped in a large field, on low ground. Dec. 1st, marched to Cherry-stone Creek, seven miles; camped in the woods near the creek. Dec. 2d, embarked on board steamer "Kent," and started at 8, A.M., for Baltimore. At 3, P.M., put about on account of the weather, and anchored again at the creek, and remained there during a snow storm. Started again on the morning of Dec. 4th, and arrived at Baltimore at 8, P.M., same day.

On the 27th of March, 1862, the Regiment embarked on board steamers "Star of the South" and "Marion," and in company with the 103d N. Y. Infantry, 3d N. Y. Artillery, and 2d Maryland Infantry, started for Newbern, N. C., and arrived there on the 1st of April, 1862. The Regiment went into camp in the town of Newbern, where it remained until the 7th, when the right wing moved five miles up the Neuse road for picket duty; the left wing moved six miles up the Trent road, for the same duty. April 14th, the right wing moved ten miles to the Red House (so called), where it remained till the 29th, when it joined the left wing at Jackson Place (so called). May 6th, the Regiment moved up the Trent road on a reconnoissance, and returned the same day. May 10th, one company, while out upon a reconnoissance, lost three men drowned in the Trent river. May 15th, the Regiment marched nine miles towards Trenton, when they met the enemy, and after a short skirmish, defeating them, returned to camp the same day. May 22d, Co. I, while out upon a reconnoissance, were ambuscaded, and lost nine men wounded (two mortally), and one killed. May 25th, the Regiment embarked and sailed up the Neuse river, seven miles, to Swift's Creek Village, where a slight skirmish ensued, with no loss on our side. Next day, marched twenty miles to a landing, when the Regiment bivouacked for the night, and crossing the river next morning returned to camp. May 30th, the Regiment returned to Newbern, distance six miles. July 7th, the Regiment moved to the south side of the Trent river, distance two miles, and encamped near the County Bridge. On the 26th, six companies marched to Polluxsville, fourteen miles, and returned to camp next day. July 31st, left camp, and crossed the Neuse River. August 1st, the Regiment marched towards Swift's Creek, five miles, and returned to Newbern, raining torrents all the time. August 23d, again marched to Swift's creek, seven miles, and returned to camp next day. Oct. 30th, seven companies embarked and proceeded up the river to Street's Ferry, nine miles from Newbern, where they disembarked, and marched seven miles towards Swift Creek, arriving at night. Here a short skirmish took place, in which we lost one man wounded. Next day, the battalion moved six miles towards Washington, where they bivouacked for the night, and the succeeding day reached Washington, distance seventeen miles. Nov. 2d, marched nineteen miles, in the direction of Williamston, when they bivouacked for the night. Nov. 3d, passed through Williamston, marching ten miles. The next day's march was in the direction of, and through, Hamilton, distance eleven miles. Next day proceeded towards Tarboro', fourteen miles. On the 6th, marched by a different route, fourteen miles, to Hamilton. 7th, returned to Williamston, twelve miles. 8th, remained in camp. 9th, marched twelve miles towards Plymouth. 10th, the Regiment embarked for Newbern, where it arrived on the 11th of November.

The surface of the country, for twenty-five miles around Newbern, is universally low, level, sandy, swampy and highly malarious. The Regiment having been much exposed to night air, suffered extremely from such exposure; nearly every man in the Regiment having had, at least once, an attack of miasmatic disease. In the month of August, eleven hundred (1100) cases are reported. The Regiment became so much reduced as to be hardly able to perform camp guard duty. It was, therefore, by recommendation of the Regimental Surgeon, relieved from picket duty, and placed in the most healthy quarters in the Department, viz., the houses in the town of Newbern. On the 22d, the Regiment moved into the town of Newbern, occupied houses for quarters, and performed provost guard duty.

Dec. 11th, the Regiment joined the Goldsboro' expedition, in light marching order, without tents, and performed a march of seventeen miles on the first day. After bivouacking for the night, the column was put in motion, and moved forward twelve miles. On the 13th, took up the line of march, and proceeded seven miles to the Woodington Meetinghouse, where the Regiment went into camp and remained till next morning, when the column again started in the direction of Kinston, distance six miles. Here it met the enemy, and after a severe engagement, lasting about four hours, the enemy were defeated, and the force entered the town of Kinston at about 5, P.M. This Regiment was immediately detailed for provost guard duty, which it performed until next day, when the line of march was resumed in the direction of Goldsboro', fifteen miles, where it bivouacked for the night. The next day again moved in the same direction, and after proceeding about two miles to Whitehall, again encountered the enemy, and after an engagement of four hours again defeated them, and moved forward, distance nine miles, when they encamped for the night. Dec. 17th, proceeded eight miles to Goldsboro' bridge, where the enemy were again encountered. The engagement lasted from 1½, P.M. to 5, P.M., when, the object of the expedition being attained, the troops took up the line of march in the direction of Kinston, proceeding eight miles before encamping for the night. On the 18th, the column resumed the line of march in the direction of Kinston, fifteen miles, and on the 19th passed Kinston at 10, A.M., marching eight miles beyond, when they encamped for the night, having marched twelve miles in all. Dec. 20th, the line of march was resumed, the Regiment arriving in Newbern at evening, after a march of twenty-five miles.

During this expedition the weather was fine, and the roads generally in good order.

Jan. 26th, the Regiment was relieved from provost guard duty at Newbern, and placed in barracks on the south side of the Trent river, near its former camping ground, where it now remains.

V.—Casualties, &c.—The following is a tabulated statement of casualties, resignations, &c., which have occurred in this Regiment since its first muster.

Strength of Regiment at first muster.	Recruits received.	Total No. the Regiment has enrolled.	Died of wounds.		Drowned.	Died of disease.		Missing.	Killed in action.		Wound'd in action.		Dischr'd.		Dismissed.	Resigned.	Mustered out.	Deserted.	Left behind on marches.	Returned.	Strength of Regiment at present time.	Total killed, discharged, present, &c.
			Officers.	Men.		Officers.	Men.		Officers.	Men.	Officers.	Men.	From Gen. Hospit'l.	From command.								
842	252	1094		5	3	1	27			2	4	35	14	147	1	16	24		2		852	1094

The discharged on Surgeon's certificate were for chronic diseases of a miscellaneous character.

It cannot now be ascertained in how many cases the disease originated before enlistment.

VI.—EPIDEMICS, &c.—Soon after the Regiment went into camp at Lynnfield, simple diarrhœa was a prevailing complaint, induced by change of water, diet and general mode of living. Recovery took place in every case. The same thing has usually occurred, but to a less extent, whenever the troops have changed their location.

Upon the return of the six companies from the expedition to the Eastern Shore of Virginia, the men were compactly crowded together on board a steamer, and there confined at least sixty hours. During this, they were unable to lie die down for want of room, and no adequate ventilation could be obtained. The senior medical officer in charge was Brigade Surgeon J. C. McNulty. In about one week after the companies reached their camp, typhoid fever began to appear, and twenty-five cases occurred among the men who had been transported as above mentioned. These cases were of the severest type, and five of them proved fatal.

During the winter and early part of the spring of 1861 and 1862, bronchitis was extremely prevalent. But few cases of pneumonia occurred; and upon the removal of the Regiment to North Carolina, this epidemic entirely disappeared. Recovery took place in nearly every case.

Venereal disease, both syphilis and gonorrhœa, prevailed extensively in the Regiment during its stay in Baltimore. Rapid and complete recovery was secured in all cases, which were treated as follows. For gonorrhœa—injections of a weak solution of sulphate of zinc, one grain to the ounce, every *hour* or *half hour*, rest and light diet. By this treatment the disease was universally cut short, no discharge appearing after the commencement of the treatment. For syphilis, cauterization of the chancre in the first instance, followed by the constant application of black wash. The cases thus treated all recovered without secondary disease.

Contagious diseases have not prevailed at any time in the Regiment. A very few sporadic cases of scarlatina, rubeola, diphtheria and varioloid have appeared. The isolation of these cases effectually prevented their increase. In the latter part of June, 1862, malarious disease began to appear, increasing in severity, and prevailing more extensively as the season advanced, until November, when the Regiment was quartered in town, as above mentioned. It was advised as early as September, by the Regimental Surgeon, that the Regiment should be relieved from picket duty, put in quarters selected for their hygienic advantages, and required to do only such duty as would be conducive to health. Notwithstanding the extreme prevalence and severity of miasmatic disease, but few deaths occurred. During the months of August and September, 1800 cases are reported; but of these, only three cases proved fatal. In many cases, however, paralysis agitans, chorea, and ascites, from hepatic disease, resulted. In other cases the constitution was completely broken down, and the men were discharged the service. No treatment was of any avail except by quinine, and this was most effectual. When cinchonism was rapidly produced, the disease was immediately broken up. It was rare that a patient would have a second paroxysm after coming under treatment. Renewed exposure to malaria, however, generally reproduced the disease. Experiments were made with quinine and cinchonine as prophylactics, without satisfactory result. Those companies which took these medicines daily, appeared to be as much affected by the disease as those who did not take it. The experiments, however, were too limited to be of practical value.

All the sick have been treated in the Regimental Hospital. None but convalescents, and cases of chronic disease not amenable to treatment, have been sent to General Hospital.

VII.—FREQUENT ISSUES OF FRESH MEAT, &c.—From the time of the organization of the Regiment, July 10th, 1861, until March 27th, 1862, full rations of fresh beef and vegetables were issued six times per week. From the latter date to the present time the average issue of fresh beef has been four times a week; fresh vegetables, twice a week.

The proportional issue of mess beef to that of pork or bacon, has been as that of three to one.

Newbern, N. C., February 20th, 1863.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

FEB. 9th.—*Diphtheria.*—Dr. CABOT said he had been called to a little boy, 7 years old, living in Osborn Place, who had symptoms of croup. No membrane was seen, but the tonsils were red, with white spots at the bottom of the crypts, as in old inflammation of those organs. As he was on the verge of suffocation, Dr. C. performed tracheotomy. The patient expelled several pieces of false membrane, some of which were casts of the bronchial tubes: and one was evidently formed at the bifurcation of the trachea. The boy lived seventy-one hours, and then sank from exhaustion. Four days aftewards, Dr. Cabot was called to the child's mother, 32 years old, whom he found *in articulo mortis*, with a diphtheritic deposit in the throat. The grandmother of the patient, aged 60 years, also had a sore throat with the same deposit. Dr. C. prescribed chlorate of potash internally, and a gargle of the same with hydrochloric acid. This patient afterwards had slight paralytic symptoms, but ultimately recovered. A young man living in the neighborhood, who had seen the patients, died of the same disease. Other members of the family had sore throats, but no deposit in the fauces.

Dr. Hodges said he had lately attended (for Dr. C. D. Homans) a young man in Village Street, who had been in the city about two months. He was attacked with sore throat on Wednesday, and Dr. H. saw him on Friday, when he was aphonic, with a pulse of 120, and patches of lymph in the throat, unaccompanied by any swelling, as in tonsillitis. The symptoms did not then appear to be urgent. The next morning the patient was much prostrated ; he had coughed up in the night a large piece of membrane of a tubular form. Unfortunately, it had been thrown away, so that Dr. Hodges did not see it, but it was so large that it could not go down the waste-pipe of the wash-basin. He gradually failed, the respiration becoming labored, and died Sunday noon. The appearances in the throat underwent no change during the sickness. No other member of the family was affected.

Dr. Putnam had attended a lad, 18 years old, living in Province House Court, who had a sore throat. The parts were red and swollen, without any deposit of lymph. The patient got much relief from the discharge of what was supposed to be an abscess. In two weeks, a diphtheritic deposit was noticed on the posterior part of the uvula. He improved, and went into the country, where, at the end of a fortnight, he suddenly died. He had no dyspnœa, but some difficulty in swallowing. On first going out of town he was able to walk half a mile without inconvenience, and in fact was "about house" till the day before his death, though for the last few days he had become very much more feeble. The case was at first treated by chlorate of potash, locally and internally. Subsequently he had stimulants and tonics.

Feb. 9th.—*Croup ; Tracheotomy ; Recovery.*—Dr. Minot said he was called, on the evening of Jan. 27th, to see a little girl, 9½ years old, who was suffering from great dyspnœa. The child was a native of Fredericksburg, Va., and was living there at the time of the bombardment of that place by our forces, the home in which she lived having been destroyed by the shells. She then went to Washington, where she took cold, Jan. 13th, by going out too thinly clad, and had frequent cough, hoarseness, and attacks of difficulty of breathing. Her friends, not supposing that she was very ill, brought her on to Boston, and she had several alarming paroxysms of dyspnœa on the journey. In the intervals between the attacks, she seemed not very sick, had a good appetite, and played with other children. She grew worse on the 27th, had a frequent hoarse cough, aphonia, and gradually increasing difficulty of breathing. No lymph could be seen in the throat, but the labored respiration made it evident that nothing but tracheotomy could save the life of the patient. Dr. Gay, who saw the child in consultation, agreed in this opinion, and with his assistance Dr. M. operated at once. The relief was immediate. No lymph was expelled, but the inner surface of the trachea was intensely red. The patient did well, and the tube was removed on the sixth day. On the morning of the ninth day, the weather having suddenly become very cold the night previous, the symptoms returned, and it became necessary to replace the tube, the opening in the trachea having meanwhile nearly closed. The symptoms again abated, the tube was again removed in thirty-six hours, and the child is now well. No lymph was ever expectorated in this case, and probably none was formed. The case seems to have been one of laryngitis, with closure of the glottis from swelling. During the convalescence of this patient, a member of the family (an adult female) was attacked with acute inflammation of the tonsils, which terminated in resolution in a few days.

Dr. Gay said that on Jan. 24th, he performed the same operation on a little girl, 3½ years old, living in Allen Street. This child is now well. Before and after the operation it expelled a good deal of membrane. This child, like Dr. Minot's patient, had a severe cold, and was very hoarse the day after the sudden "cold snap," but there was no obstruction to the breathing, and it was not necessary to replace the tube.

Feb. 23d.—*Croup; Tracheotomy; Death.*—Dr. Minot said he was called, on the afternoon of Feb. 9th, to see a little boy, 7 years old, with croup, in consultation with Dr. T. E. Francis, of Brookline. The patient was attacked with sore throat, cough and hoarseness on the 6th. When seen by Dr. M. he had aphonia and labored respiration. The tonsils were swollen, and on their surfaces were seen a few streaks of lymph. Dr. Francis performed the operation of tracheotomy, with immediate relief to the breathing. The child expelled several fragments of membrane, both from the mouth and from the tube, during the night and on the following day, but the breathing gradually became obstructed again, and the patient died on the morning of the fifth day after the operation, apparently from exhaustion. He took nourishment freely up to an hour before his death. There was no autopsy, but it seemed probable that the disease had extended to the bronchial tubes. During the last two days the tube was wholly removed, and the wound prevented from closing by the occasional introduction of the dilator and swab, and the expulsion of the bronchial secretions seemed to be much facilitated thereby. The father of the child, the nurse and Dr. Francis, were all attacked, about Feb. 13th, with sore throat, accompanied with much prostration; but with the two former, at least, this could be traced to exposure to cold.

Feb. 23d.—*Lesion of Accommodation of the right Eye, only, consequent on nursing with the right Breast.*—Dr. Bethune reported the following case:—Catharine A., health pretty good, but four years ago had an attack of pain in region of the heart, and palpitation. Married ten years; she has had six living children and two miscarriages. These children she has nursed for the usual period, and in every instance during nursing she has had an attack similar to the present, which has disappeared after weaning the child. She has never been able to nurse from the left breast, in consequence, as she says, of a sore nipple subsequent to her first confinement. The left breast, however, fills with milk, though not to the same amount as the right, and after the right is emptied by the nursing she feels the milk pass from the left to the right breast, and the left is gradually emptied also. The breasts show nothing peculiar, except the non-development of the left nipple.

The present attack, in the right eye only, goes back ten months. Objects seem clear at first, but become blurred after a short use of the eye: she has also darting pain in the eye two or three times a day. The eyes present nothing abnormal to the examination. The pulse is feeble and irregularly intermittent. The same intermission is observed in the heart, with rather a heavy beat. She was told to wean the child, and give the eye rest.

Feb. 7th.—Not improved. Take two grains of quinine thrice a day; lotion of diluted alcohol.

14th.—The same. With a convex glass of a certain focus, she can read at the normal distance. To use this glass for a while.

It is very unusual to find the symptoms above described confined to *one eye* only, so much so that Dr. B. thought the connection between this eye and the corresponding breast is more than a coincidence.

The statement of the passage of milk from one breast to another, Dr. B. gave as he heard it. The patient is an Englishwoman of fair intelligence, and could hardly have been mistaken in her sensations. Dr. Hay, who was present on one occasion, confirms the exactness of the statement.

Bibliographical Notices.

The Principles and Practice of Surgery, embracing Minor and Operative Surgery; with a Bibliographical Index of American Surgical Writers from the Year 1783 *to* 1860. Arranged for the use of students, and illustrated by 400 Wood-cuts and nearly 1000 Engravings on steel. By Henry H. Smith, M.D., Professor of Surgery in the University of Pennsylvania, &c. 2 Vols. 8vo. Pp. 1595. Philadelphia: J. B. Lippincott & Co. 1863.

The author has brought together in the present volumes the matter formerly published in three distinct works, namely, Minor Surgery, Operative Surgery, and The Practice of Surgery. These treatises, he states, have been carefully revised and re-written in many portions, so as to form a text-book for students and the younger members of the profession. The first volume contains, by way of introduction, a general history of surgery, a chronological sketch of its progress in the United States, and a full bibliographical index of American works on subjects connected with the practice of surgery from 1783 to 1862. It embraces general surgical pathology and therapeutics, and such surgical disorders as do not demand operations for their relief. The second volume treats of sectional disorders and operations, arranged according to an anatomical rather than a pathological system, and contains descriptions of the topographical anatomy of the various regions into which the subject is divided, with numerous engravings upon steel in illustration of the operations and of the instruments employed. In connection with each of these divisions is a list of all the papers published by American surgeons in reference to the particular subjects they embrace. Thus, for instance, under "Disorders and Operations of the Head and Face," 328 papers, published in the various medical journals of the country during the last half century, are arranged by title chronologically, and afford a valuable means of easy reference to one wishing to study the history of any operation.

We wish, however, that the author had extended his researches into the literature of other countries also. We do not understand by regional surgery the necessary observance of geographical as well as anatomical boundaries, and as much as we cherish patriotism, we would not have it applied to science, which should know no national limits. The work is not intended for foreign surgeons, who may require enlightment upon the state of operative surgery in America, and badly enough they do need it, but for the student and young practitioner, who wish to know the latest results of observers in science in all countries. We are sorry to see a text-book written in 1862 so far behind the age as to entirely ignore some of the latest doctrines in regard to the nature and treatment of syphilis, for instance, the very first disease, probably, which the young physician will be called upon to treat, and to dismiss the ophthalmoscope with a notice of a few lines only. It is not our intention, however, to attempt here a critical review of the work before us, or to discuss the doctrines of the author, some of which certainly are very peculiar, and are, as we believe, at variance with the results of the observations of others. He has, however, as it appears to us, succeeded in an honest endeavor to prepare a useful work of study and reference for the student of medicine.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MARCH 19, 1863.

Report of the Surgeon-General of Massachusetts for the year 1862.—The last annual report of the Surgeon-General is before us, and we find it to contain much matter of historic value, as showing the interest which our State Government takes in her sons while far away from their homes, engaged in the cause of our common country. They are not left to the care of the General Government alone, under whose authority they are acting and whose proper business it is to see that they are supplied with all the necessaries and comforts requisite to keep them in a state of the highest military efficiency, but with true paternal regard they are watched over by our State authorities also with untiring solicitude; so that they are constantly led to feel that absence has not made us unmindful of them, but rather increases our affectionate interest in those who are making such sacrifices in a righteous cause.

The present report of the Surgeon-General contains a succinct narrative of what has been done by the State and the medical profession here, in order that the Massachusetts regiments might be supplied with the best possible skill and means for protecting and preserving their health. On the very first page we find that in addition to the medical supplies furnished by the United States Government, extra hospital stores, dressings and instruments have been contributed to several regiments, and, in the case of those stationed in malarious districts, an abundant supply of quinine and opium has been furnished, to meet the requirements of prophylactic use. Next follows a history of the medical bureau, so to speak, of the State. Due mention is made of those honored members of the profession who were the first to take the field, and their names here find a permanent record. Then comes an account of the Medical Commission of the State, and the means which it has adopted to secure to our soldiers and to the army in general the best professional skill available. A full list is given of all the surgical appointments from this State. We find the names of one hundred and eighty-four surgeons on this list, of whom seven have laid down their lives in the service, four of them having been killed in battle. A number of members of the profession have on different occasions been engaged for a time in some special service connected with the army, and the history of all these commissions we find faithfully recorded in the report before us. An account is also given of the examination of claimants for exemption from military duty. The Surgeon-General dwells with special emphasis on the neglect, or something worse, of those examiners of recruits, who, in too many instances, have allowed men to be enrolled who were physically incapable of performing military duty. This subject we have commented on more than once, and we are glad to find that such neglect of duty meets with impartial condemnation from the Surgeon-General.

By means of State Agencies in Washington, Baltimore, Philadelphia and New York, a personal supervision over the welfare of our soldiers has been constantly kept up, and accurate lists of the sick and wounded from our State have been regularly supplied to the authorities here, to the great relief and comfort of their friends, giving them the means of constant communication with them, thus greatly mitigating their trials and sufferings. The continuance of these agencies is strongly recommended by the Surgeon-General.

The subjects of a Sanitary Board to look after the hygienic condition of the State camps, the importance of a proper attention to the cooking of the soldiers' food, and the great evils resulting from overcrowding of the men on board of transports, all receive due consideration in this report. Of this last, the Surgeon-General says with indignant emphasis :—

> "There is one subject on which I venture to hope your Excellency will utter no uncertain sound. This is the outrageous and culpable inattention and neglect of government officials shown in the transportation of our troops. The unseaworthy condition of the ships sailing from other ports than this ; the overcrowding, the want of room and facilities for proper ventilation, with a general disregard for the comfort of the men—call loudly for reform. It would be difficult to calculate the amount of morale and physique lost to a regiment by such a disregard of the common conditions of health. These transports are not intended for slave pens, but for the conveyance of the soldier whose manliness and better nature should not be crushed out by these circumstances."

We cannot forbear making another quotation as evidence of the patriotism and good behavior of the men whom Massachusetts has sent into the field. It is as follows :—

> "I may be allowed to add, as the result of my observation and experience in the duties of this department, the conviction that Massachusetts soldiers are to be relied upon for their word as implicitly as any other class of citizens. Nearly every man absent from his regiment reports here for instructions ; and among all who have thus had occasion to apply, not one, so far as I know, has failed to return at the expiration of a furlough granted him, unless prevented from travelling by extreme sickness ; instances of unwillingness to return to duty after convalescence are rare. From this fact we may infer how rarely wanton desertion from duty, or absence without leave, occur among our Massachusetts troops."

So much has been said of desertions from the army that we are glad to find such proof that the stigma does not attach to the Old Bay State.

And so we take leave of this interesting report. It shows that the office of Surgeon General is by no means a sinecure, and that the present incumbent is most untiring in his devotion to its duties.

MALARIAL DIATHESIS.—The *Chicago Medical Journal*, in noticing Surgeon Bidwell's communication on Malarial Diathesis, which we published in our issue of Feb. 12th, remarks as follows :—

> We call our contemporary's attention to the fact that this is by no means a *new* symptom, as it most certainly is not a pathognomonic one. In a communication to the *Western Journal of Medicine and Surgery*, August, 1851 (re-printed in the *American Journal of the Medical Sciences*, October, 1851, page 555), Dr. Thomas C. Osborne, of Erie, Ala., points out this same symptom. We extract a single paragraph from his article with regard to what he designates "the *melarial margin*" :—
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> "As the name imports, it is an essential departure from the normal aspect of the edge, constituting a distinct lateral boundary of the tongue, occupying more or less surface, according to the charge of infection in the system. Ordinarily, the color amounts only to a very faint bluish tinge, which is liable to be lost, or merged in the various tints imparted to the tongue in various diseases. The most fixed condition of this symptom is an appearance of indentation or crimping transversely, which is apparently confined to the subjacent tissue, while the superficial integument is moist, smooth and transparent. In a word, it seems to be a continuation or encroachment of the inferior surface upon the superior and lateral borders of the tongue, greater as we approach the root of that organ."
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> Dr. Osborne attributed great importance to this condition of the tongue as proving "malarious" poisoning, and as indicating the use of quinine. He asserted that he was able, by observing it, to predict an attack of malarious disease, many days before its occurrence.
>
> Largely familiar as we have been with the multiform varieties of intermittent and remittent, we must be permitted to say, that although this condition of the tongue is quite common in these forms of disease, yet it is by no means constant, even in the most strongly marked cases. In these, as elsewhere, the tongue is prone to deceive. It is an occasional, but not a pathognomonic symptom.

We are much interested in this extract, which is as new to us as it probably is to Dr. Bidwell; confirming as it does so fully his observations. Whether the sign in question is pathognomonic or not, may it not be that the cases observed by Dr. B. were so thoroughly saturated with the malarious poison in the extremely sickly region in which he was situated, that within the range of his observation, at least, his opinion was literally correct?

THE ANNUAL COMMENCEMENT OF THE HARVARD MEDICAL SCHOOL took place on Wednesday, the 11th inst. The graduating class numbered forty-two. The occasion was a very interesting one, and was honored by the presence of his Excellency the Governor and many gentlemen of literary and scientific tastes. The Address to the graduating class was delivered by Professor Bowditch, and was a most eloquent testimonial to the dignity of the medical profession, and a most earnest appeal to his auditors to make it the means of the highest development of the noblest traits of human character. It was listened to with unabated interest throughout, and the frequent bursts of applause showed how truly the orator touched the chords of a genuine sympathy in the breasts of his hearers. The address was worthy of a larger audience than the hall could contain, and we hope it will be given to the public in print.

MASSACHUSETTS MEDICAL COLLEGE.—The following gentlemen received their medical degrees from Harvard University on the 11th inst.:

Name and Residence.	*Thesis.*
John Morton Barnaby, *Cornwallis, N. S.,*	Diphtheria.
John Moody Bingay, *Tusket, N. S.,*	Tartar Emetic.
Wallace Bolan, *New Sharon, Me.,*	Diphtheria.
Thomas Crozier, Jr., *Charlestown,*	Secondary Hæmorrhage.
Charles Dutton, *Mt. Vernon, N. H.,*	Causes of Insanity.
Artemas Ira Fenn, *Boston,*	Gun-shot Wounds.
Eugene Rufus Fiske,	From what cause does the Periodicity of Miasmatic Diseases arise?
Lorenzo Smith Fox, *Lowell,*	Pericarditis.
George Ebenezer Francis, *Lowell,*	The Tourniquet.
John Brown Garvie, *Halifax, N. S.,*	The Nobility of the Medical Profession.
John Henry Gilman, *Lowell,*	Pneumonia.
George Lincoln Goodale, *Portland, Me.,*	Malignant Anthrax.
Jasper Spurzheim Grant, *Ossipee, N. H.,*	Pneumonia in Children.
Neil K. Gunn, *Inverness, N. S.,*	The Science of Medicine.
John Hart, *Boston,*	Acute Articular Rheumatism.
David Hyslop Hayden, *Boston,*	Treatment of Simple Fractures of the Thigh, by Dr. Buck's Apparatus.
Arthur Kemble, *Wenham,*	Typhoid Fever.
William Dickson Knapp, *Sackville, N. B.,*	Duties of the Physician.
Horace Samuel Lamson, *Providence, R. I.,*	Insanity.
Marshall Larkin Lindsay,	Chronic Hydrocephalus.
Murdoch MacGregor, *Cape Breton,*	Phlegmasia Dolens.
Daniel McLean, *Charlottetown, P. E. I.,*	The Influence of Tobacco on the human system, with cases illustrative of its Effects.
John Chisholm McLellan, *Economy, N. S.,*	Diphtheria.
Hugh Flournoy McNary, *Princeton, Ky.,*	Muscular Activity.
Daniel McPhee, *York River, P. E. I.,*	Diphtheria, as it is.
Albert Leshman Mitchell, *Chester, N. S.,*	Acadian Climatology.
George Merrick Nichols, *Dorchester,*	Hysteria.
George Sterne Osborne, *S. Danvers,*	Delirium Tremens.
Edgar Parker, *Bridgewater,*	Indigestion.
John Eleazer Parsons, *Charlestown,*	Effects of Mental Emotion on the human body in health and disease.
John Gardner Perry, *Boston,*	The comparison of Water Dressings with Poultices in the Treatment of Gunshot Wounds.
Elisha Hervey Quimby, *Salem,*	Hepatitis.
William James Radford, *Boston,*	Adjuncts to Diagnosis.
Eugene Patterson Robbins, *Boston,*	Bright's Disease.
George Eastman Stubbs, *Strong, Me.,*	Diagnosis.
Charles Everett Vaughan, *Cambridge,*	Affection of Sight in Albuminuria.
Emerson Warner, *Wilbraham,*	Scarlatina.
Dewey Kellogg Warren, *Boston,*	Diagnosis.
George Clark Webber, *Deep River, Ct.*	Croup—Its Natural History and Treatment, medical & surgical.
James Wightman, *Georgetown, P. E. I.*	Intermittent Fever.
Reuben Augustus Wilbur, Jr., *Plympton,*	Pleuritis.
Alexander Morris Wood, *Boston,*	Lead Disease.

D. HUMPHREYS STORER,
Boston, March 18th, 1863. *Dean of the Med. Faculty.*

THE *American Medical Monthly* for December, 1862, has just reached us, and we regret to observe that it closes with the announcement of its discontinuance. The reason assigned is the continual absence of the Editor from New York, which prevents his giving attention to his editorial duties. With the close of the war he hopes to resume his post. We shall greet his return as cordially as we now regret his withdrawal.

LEAD COLIC SUCCESSFULLY TREATED BY GALVANISM.—The *Journal de Médecine de Bordeaux* mentions that in a case of lead colic, in which there had been obstinate constipation for five or six days, which had resisted the action of purgatives, the application of Faradization to the abdominal walls was followed in ten minutes by copious evacuations, with entire relief to the pain.

THE BRISTOL NORTH DISTRICT MEDICAL SOCIETY held their annual meeting recently at the Taunton Hotel. The following officers were chosen:—

President—Dr. John R. Bronson, of Attleboro'.

Vice President—Dr. Joseph Murphy, Taunton.

Secretary and Treasurer—Dr. John B. Chace, Taunton.

Censors.—Drs. Henry B. Hubbard and John B. Chace, Taunton, and John R. Bronson, Attleboro'.

Councillors.—Drs. Henry B. Hubbard and Charles Howe, Taunton, and Wm. G. Allen, Mansfield.

Librarian—Dr. Ira Sampson, Taunton.

Delegates to the American Medical Association.—Drs. Joseph Murphy, Taunton; Thaddeus Phelps, Attleboro'; John B. Chace and Henry B. Hubbard, Taunton.

Com. on Trials—Dr. Thaddeus Phelps, Attleboro'.

Essayist—Dr. Henry B. Hubbard, Taunton.

William Allen, M.D., of Mansfield, was admitted as a member.

Dr. Joseph Murphy read a very able and interesting essay on Puerperal Convulsions, for which he received the thanks of the Society, and a copy was requested for publication in the Boston Medical and Surgical Journal.

Dr. John B. Chace presented for the examination of the members a splint for fracture of the femur, with a modification designed by himself, and which received the approval and commendation of the members. By this splint extension may be made, and the knee-joint flexed or extended at pleasure without interfering with the extension.

J. B. CHACE, *Secretary.*

UNFITNESS OF RECRUITS UNDER TWENTY YEARS OF AGE.—We print the following extract from the recent work of Dr. Aitken on Recruits, as it appears in the *Dublin Quarterly's* notice of that work. The numerous instances of young men under twenty in our army who have broken down under the labors and hardships of military life fully confirm its truth.

"As the twig is bent, so the branch will grow. I have shown you that till the twentieth year of life the ribs behind are still unfinished, soft at their joint ends, where resistance and motion occur, and where they are still growing. The breast-bone in front is in a similar condition. It is obvious, therefore, that continued pressure upon these parts from before and from behind must exercise a material influence in fixing the future form of the chest. The cartilages of the ribs in front and the breast-bone ought to have full freedom to rise upwards and advance forwards at every inspiration, for thus the diameter of the chest, from before and behind, is naturally increased at every act of breathing. Any pressure on the chest, therefore, exerted between the front aspect and the back, when the bones are still growing, must *tend to set* the further growth of the bones in an unnatural direction; for in order to maintain the vital capacity of the lungs, the capacity of the chest cavity from side to side must come to be increased, at the expense of the cavity in the other and normal direction. The capacity of the lungs goes on increasing with age, and height, and growth, so that men from five feet to six feet high inspire from 174 to 262 cubic inches in a progressively ascending scale. The growth of the heart also goes on relatively to the growth of the body."

MEDICAL DEPARTMENT OF THE UNIVERSITY OF NEW YORK.—The annual commencement took place on the evening of March 5th, when the degree of Doctor of Medicine was conferred on 56 graduates. The address was delivered by Professor Metcalfe. The Mott medals were awarded as follows: to Faneuil D. Weisse, the gold medal; G. E. Vartanyan, the silver medal; also the Metcalfe prizes, three in number, to H. J. Devlin, R. D. Nesmith and Wm. M. Dorran.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MARCH 14th, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - -	44	34	78
Ave. mortality of corresponding weeks for ten years, 1853—1863,	36.9	35.5	72.4
Average corrected to increased population - - - -	00	00	79.80
Death of persons above 90 - - - - - - -	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
16	3	2	6	0	0	1	2

PAMPHLETS RECEIVED.—Transactions of the Ohio State Medical Society, 1862.—Annual Report of Saint Vincent's Hospital, New York, for the year 1861. (From Dr. Finnell.)—Catalogue of the Officers and Students of the University of Michigan, for 1863.—Reports on the Operations of the Inspectors and Relief Agents of the Sanitary Commission, after the battle of Fredericksburg, Dec. 13, 1862, by J. H. Douglass, M.D., Associate Secretary San. Com., and G. W. Brink, M.D., Inspector San. Com.—Report of the Committee on Military Affairs and the Militia, in the Senate of the United States, to whom was referred the petition of Dr. William T. G. Morton, asking compensation for the discovery and gift to his country and mankind of the application of ethereal vapor as a safe and practical anæsthetic, or pain-subduing agent. (From Senator Wilson.)

DIED,—In South Wilbraham, March 3d, Marcus Cady, M.D., aged 66 years; and on March 7th, Hermonia A. Cady, his wife, aged 63 years.

DEATHS IN BOSTON for the week ending Saturday noon, March 14th, 78. Males, 44—Females, 34.—Abscess (pelvic), 1—apoplexy, 2—asthma, 1—stoppage of the bowels, 1—congestion of the brain, 1—disease of the brain, 1—bronchitis, 6—burns, 1—consumption, 16—convulsions, 1—croup, 3—diphtheria, 2—dropsy, 1—dropsy of the brain, 3—exposure, 1—scarlet fever, 2—typhoid fever, 1—disease of the heart, 5—infantile disease, 4—disease of the kidneys, 3—laryngitis, 1—inflammation of the lungs, 6—marasmus, 3—old age, 3—synovitis, 1—tabes mesenterica, 1—unknown, 7.

Under 5 years of age, 31—between 5 and 20 years, 9—between 20 and 40 years, 20—between 40 and 60 years, 13—above 60 years, 5. Born in the United States, 60—Ireland, 15—other places, 3.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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IRIDECTOMY.

By J. H. Dix, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

The operation of iridectomy has been too recently correctly described in this and other journals to make it necessary to repeat it. There are, however, one or two points connected with it, a further consideration of which may lessen the repugnance of the general practitioner to enter upon this portion of the field of surgery.

First, the instruments essential to its performance are to be found in the dressing case of every practitioner; viz., a lancet, a pair of forceps and scissors. The lancet should have a broad shoulder in order to effect a sufficiently wide opening without bringing its point too far forward in the anterior chamber for the safety of the cornea. It should not have been thinned by repeated sharpenings, and of course should be in perfect order. The forceps need not absolutely be very small, provided that they are *pointed*. The scissors, if large, must be first ascertained to cut with precision close to their points, and curved are preferable to straight scissors.

A thorough etherization of the patient is very desirable, as also that he should not be liable to vomit from a recent meal. If by the fingers of the operator and of a clever assistant holding the lid, the globe is not rendered nearly immobile, a common tenaculum or hook passed through the conjunctiva and twisted half round answers very well as an ophthalmostat. With these instruments, if those to which I am accustomed are not accessible, I should not hesitate to operate.

The first step in the operation, as described by some, suggests a difficulty and perplexity, even to one tolerably conversant with the minute anatomy of the eye. It is directed to enter the sclerotic a half line back of its anterior margin. Now all operations with which we have heretofore been familiar by sclerotonyxis (through the sclerotic) have been posterior to the iris, and it is necessary in this connection to bear in mind the fact that although the sclerotic appears to terminate where the iris commences, it does not, but advances front of the plane of the iris. It is intended to enter the anterior chamber, and to take hold of the iris on its anterior face. The initiative incision is, therefore, to be made in front of the iris, but as near to it as is practicable, and it is in fact made not through the sclerotic alone, but through the sclerotic and the cornea; through a portion of the sclerotic which overlaps the cornea and a portion of the cornea which underlies the sclerotic.

The second step in the operation, the seizure of the iris by the forceps and pulling a portion of it out, does not involve a plunging of the forceps into the anterior chamber. With the evacuation of the aqueous humor, the iris has already fallen towards, and presents itself at and sometimes through the opening.

In the last step, the cutting off of the iris, it is important to remember that in glaucoma and other conditions for which it is necessary to lessen intraocular pressure, it is desirable to remove a considerable portion of the iris, and especially that nearest its outer circumference. The iris must be cut off as closely as possible to the globe.

On these points the *American Journal of Ophthalmology* gives, among other valuable hints, the following from Dr. Arlt:—"The iris must be cut off to its periphery in order to give entire satisfaction. The section of the iris must at least comprise 2^{mm} of its substance, and for that purpose the outside wound of the cornea must have 6^{mm} to 8^{mm}, the inside one 3^{mm} to 4^{mm}. The iris hook (Tyrell's), is so dangerous for the capsule that its employment ought to be dispensed with. The cutting off of the iris after it is drawn out of the wound must be done *à deux temps:* the first half of the flap is cut, and then this part is drawn upward before the rest is snipped off. This method allows to cut up to the margin of the corneal wound."

Previous to the remarks here quoted, Dr. Arlt had expressed his preference for an initiative opening through the cornea only, near the sclerotic, instead of through the sclerotic. In cases in which the pupil is not much dilated, this may be allowable; and to an unpractised operator would certainly be convenient. But when, as in glaucoma, for the relief of which a general practitioner would oftenest find occasion to perform iridectomy, the pupil is largely dilated, sometimes to the extent of complete mydriasis, the readiest access to the iris, and especially its periphery, will be found to be at the overlapping of the sclerotic upon the cornea, in accordance with general usage.

Of the inestimable value of this means of relieving intraocular pressure, and of the imperative necessity in glaucoma of an early resort to it for the salvation of sight, a continued experience has convinced me, and I delay the report of several cases of interest, only to be assured of the permanence of the apparent result.

OBSCURE SOURCES OF DISEASE.

By James R. Nichols, Boston.

[Communicated for the Boston Medical and Surgical Journal.]

There are many instances of disease brought to the notice of physicians which are exceedingly perplexing in their character, and the sources of which are very imperfectly understood. They belong to a class outside of, and distinct from, the usual forms of disease resulting from constitutional idiosyncrasies, or accidental causes, within the knowledge of the patient or medical attendant. The obscurity of their origin and persistency under treatment, render them peculiarly trying to the patient and the skill of those who have them in charge, and after the trial of the usual remedies without effect, the patients are sent into the country or to the sea-shore, as the case may be, with the expectation that a change of air or residence may prove beneficial.

We cannot, in a majority of cases, regard these affections as altogether imaginary, or as resulting from some casual derangement of the nervous system; they are instances of true disease, and should be studied with the view of bringing to light the hidden source from whence they originate. I am led to believe that a considerable number arise from some disturbance in the sanitary conditions of dwellings or their surroundings, and that however improbable this may seem from a superficial or even careful examination of suspected premises, a still more thorough and extended search will often result in the discovery of some agent or agents capable of producing disease.

The chemical and physical condition of water used for culinary purposes has much to do with health, and is perhaps the oftenest overlooked by the physician in searching for the cause of sickness. We must not suppose that water is only hurtful when impregnated with the salts of lead or other metals; there are different sources of contamination, which produce the most serious disturbance upon the system. Some of these are very obscure and difficult of detection. The senses of taste and smell are not to be relied upon in examinations, as it often happens that water entirely unfit for use is devoid of all physical appearances calculated to awaken suspicion. It is clear, inodorous, palatable, and there is no apparent source from whence impurity may arise.

A few instances which have come under my observation may serve to illustrate the view presented, and as suggestions to those who are in doubt as regards the cases of patients upon their hands.

During the past summer, the writer was consulted by a gentleman residing in Roxbury, respecting the water used in his family. It was taken into the dwelling through tin pipe from a well in the immediate vicinity, and appeared to be perfectly pure and healthful. Analysis disclosed no salts of lead or copper, as indeed none could be expected from the unusual precautions taken to prevent contact of the water with these metals. Abundant evidence was however afforded that, through some avenue, organic matters in unusual quantities were finding access to the water. Careful examination of the premises disclosed the fact that an outhouse on the grounds of a neighbor was so situated as to act as a receptable for house drainings, and from thence by subterranean passages the liquids flowed into the well. Some cases of illness, of long standing in the family, disappeared upon abandoning the use of the water.

A few months since a specimen of water was brought to me for chemical examination, by a gentleman of Charlestown, who stated that his wife was afflicted with protracted illness of a somewhat unusual character. It was found to be largely impregnated with potash and the salts resulting from the decomposition of animal and vegetable *debris*, and the opinion expressed that some connection existed between the well and the waste fluids of the dwelling. This seemed improbable, as all these were securely carried away in a brick cemented drain, and in a direction opposite the water supply. The use of the spade, however, revealed a break in the drain at a point favorable for an inflowing into the well, and hence the source of the contamination. Rapid convalescence followed on the part of the sick wife upon obtaining water from another source.

Analysis was recently made of water from a well in Middlesex County, which disclosed conditions quite similar to these. The owner was certain that no impurity could arise from sources suggested, but rigid and persistent investigation disclosed the fact, that the servant girl had long been in the habit of emptying the "slops" into a cavity by the kitchen door (formed by the displacement of several bricks in the pavement), where they were readily absorbed. Although the well was quite remote, the intervening space was filled with coarse sand and rubble stones, and hence the unclean liquids found an easy passage to the water. This proved to be the cause of illness in the family.

It is unnecessary to present other instances of a similar character on record. These serve to bring to view some of the sources of impurities in water used for household purposes, and the obscure cause of serious diseases. The location of wells connected with dwellings is a matter which should receive attention at the hands of physicians.

It is well known that in the gradual decomposition of animal and vegetable substances, at or near the surface of the earth, under certain conditions, nitrogenous compounds are developed. The nitre earths found beneath old buildings result from these changes, although it is quite difficult to understand the precise nature of the chemical transformations which produce them. In the waters of a large number of wells in towns and cities, and also in the country, the nitrates are found at some seasons in considerable quantities. The salts form at the surface in warm weather, and being quite soluble, are carried with the percolating rain-water into the well. In cities and large towns, where excrementitious matters accumulate rapidly around dwellings compacted together, it is difficult to locate wells remote from danger, and hence it might seem that suspicion should be confined to these localities. This, however, is not a safe conclusion. How often do we see, upon isolated farms in the country, the well located within, or upon, the margin of the barnyard, near huge manure heaps, reeking with ammoniacal and other gases, the prolific sources of soluble salts, which find access to the water and render it unfit as a beverage for man or beast. It may no doubt be a convenience to the farmer to have his water-supply so situated as to meet the wants of the occupants of his barn and his dwelling, but it is full of danger.

Whilst admitting that such may be the condition of the water of many wells, doubts may arise with some, whether substances not decidedly poisonous, and received in such quantities, can after all be productive of much harm, or the real source of illness. To the great majority of people they are certainly harmless, but it must be admitted that there is a class, and one or more are found in almost every family, whose peculiar sensitive organization does not admit of the presence of any extraneous agent in food or drink, or in what they inhale. The functions of life and health are disturbed by the slightest deviation from the usual or normal condition of things around them. It is manifestly of importance that physicians should recognize these peculiarities in individuals. It is unsafe, in making a diagnosis of disease, or seeking for causes, to overlook or forget them.

We are, indeed, incapable of understanding how this can be. It seems incredible that the thousandth part of a grain of one of the salts of lead, dissolved in water and taken daily, will disturb the system of any one; and yet such is the case. We can see no reason why a very little nitrate of potassa, or soda, or lime, taken in the same way, should produce any effects; still stranger is it that the infinitesimal amount of dust dislodged from painted wall-papers, received into the lungs, should make inroads upon health.

Several instances of this latter result have recently come to my knowledge. In two families of the highest respectability in this city, illness of an unusual and protracted character existed, and at the suggestion of the physician, portions of the green wall-paper of the dwelling were submitted to me for analysis. The pigments were found to consist mainly of arseniate of copper, and upon the removal of the papers the illness disappeared. In experimenting with apparently the most suitable apparatus, and employing delicate chemical tests, in rooms the walls of which were covered with these arsenical papers, no evidence of the presence of the poison in the atmosphere has been afforded; and this corresponds with the results of all similar experiments made in this country and in Europe, so far as my knowledge extends. We must conclude that agents not recognizable by chemical tests are capable of disturbing vital processes. The evidence is very clear that in instances of illness confined to one or two members of a household, the cause may be due to some accidental disturbance with which all are equally brought in contact, but which has not the power of injuriously influencing but a part. It is also clear that these sources of disease are of such a character as easily to escape detection, and therefore any facts or experience which may serve as guides to their discovery are worthy of record.

109 *Milk Street, March,* 1863.

WASTING PALSY—PARALYSIS OF BELL AND CRUVEILHIER.

The confusion arising from the various names assigned to this form of paralysis is very great. Dr. Roberts, in his excellent monograph,* adopts the term wasting palsy, as short and convenient, and expressing its most remarkable feature; at the same time suggesting that it should be called by the name of Cruveilhier; but it would appear that that of Sir Charles Bell should, in justice, be added. As in the previous cases, the attempts to name the disease by its clinical or pathological characters, have been quite unsuccessful, the features that were used for the purpose having been proved by increased experience not to be constantly present. Thus Aran calls it "atrophie musculaire progressive," and Duchenne "atrophie musculaire avec transformation graisseuse," and Sandahl combines both characters in his name, calling it "atrophia muscularis paralysans, adiposa, progressiva," a name rather inconvenient for common use, in addition to its being inappropriate, from its being now well established that, though the muscles generally undergo fatty degeneration, there are cases in which there is no transformation into fat, and that the atrophy is not necessarily progressive.

In this Journal, and in the *Dublin Hospital Gazette*, cases presenting some points of importance have been published by Dr. Reade and Dr. Banks, proving, amongst other things, that the disease is not always progressive. Dr. Reade's† was that of a young man, 19 years of age, who had been suffering from the disease for eighteen months. When he stripped his body to the waist, he exhibited neck, chest, and arms, to the elbow-joints, reduced to a most abject degree of emaciation, such as is seen pervading the whole frame of those who have undergone protracted wasting disease. The emaciation—the decadence of muscular fibre together with the tegumentary covering—was perfectly symmetrical, muscle for muscle, on each side of the median line, both on the anterior and posterior aspect of the trunk: the greater and lesser pectoral muscles were little more dense than the strongest brown wrapping paper; the muscles of the neck, anterior and posterior, proportionately attenuated; the muscles on the scapulæ, particularly the supra and infra spinal muscles, were so much diminished as to show the spine of the bone, with distinctness only less than the dry bone; all prominences from the deltoids were gone, and the muscles of the humeri were reduced to the cellular membrane, the mere elementary outline of the muscles, the biceps and triceps especially; from the elbows, the muscles of the fore-arms and hands displayed the full development of a robust and vigorous man of his stature, with all the concomitant power, sensibility, and aptitude for use. All the muscles outside the pelvis, and those of the inferior extremities, were full, strong and well-formed.

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* Reviewed in Dublin Quarterly Journal of Medicine, vol. xxvi., p. 101.

† Dublin Quar. Jour. of Med., vol. xxii., p. 393.

His history was this:—Within the period of eighteen months he was in all respects, as regards the muscles of his neck, trunk and arms, in due proportion with the fore-arms and lower limbs, and he was distinguished among his companions in all athletic exercises. The first sign of his approaching malady, which he perceived, was a degree of stiffness or difficulty of executing the motion of putting on or removing his hat from his head. He never suffered pain, and has enjoyed uninterrupted health, his digestive functions being performed with perfect regularity.

Dr. Reade treated him by counter-irritation over the cervical vertebræ, put a seton in the back of his neck, and gave him mercury in small but long-continued doses, keeping him under its sensible action for three months. He subsequently made him use dumb-bells, to excite nutrition by the stimulus of gymnastic exercises, and used electro-magnetism for several weeks. Under this treatment he recovered flesh and substance on the scapulæ, and especially the spinati muscles, but afterwards thought his strength diminished; and after about two years the treatment was discontinued. At the expiration of six years Dr. Reade again saw him, and gives the following account of him:—"The change in his appearance is most decided, and altogether on the side of improvement. The first marked amendment which strikes the eye is the fair amount of adipose substance which has been restored over the whole of the emaciated surface of the chest, back, neck and arms; he might be said to be in good condition; formerly, the ribs were all prominent, and the conical form of the chest was as apparent as in the skeleton, from the disappearance of the pectoral muscles and the excessive thinness of the tegumentary covering; over the back of the humerus the integuments fell in a loose fold; the muscles of the neck have all been fully restored; the muscles of the scapulæ considerably augmented; the deltoids in a small degree, but the fibre feels tense and very firm; the triceps and biceps are little better than membrane, but possess true muscular action, perfectly obedient to the will. The muscles of the fore-arms have lost much of the bulk they had six years ago; the hand has become attenuated; this may be accounted for by his occupation, viz., a sedentary and mental pursuit for six years. He reports himself as possessing at present, and during the whole progress of this extraordinary disease, the most uninterrupted good health, his digestive functions being performed with invariable regularity; and never, from its commencement up to the present time, had he the least pain pending the degeneration of the muscles. . . . His present exercise is pulling an oar in a boat on the sea. It is here established that the symmetrical atrophy may undergo arrest, may even renew the vital action of nutrition to the renovation of the decayed muscle."

Of Dr. Banks's cases,* one had been the subject of the disease for five years: it began in the right arm with pains, thought to be rheumatic, after exposure to damp and cold and much continuous work at shoemaking. The fingers first became weak, then the wrists, accompanied with cramps and convulsive twitchings of the muscles; the disease extended to the fore-arm, and, after some months, the left hand became affected in precisely the same manner, the thumb being the first part implicated, and then the muscles of the forearm, with loss of substance. The muscles of the back of the neck and of the shoulders were subsequently implicated, those of the lower extremities were unaffected; the man was active and a good walker. The affected joints were generally very cold, livid, and moist; but there was at times a marked elevation of temperature, their sensitiveness to impressions of cold was very remarkable; and as the disease was commencing the muscles were always more feeble in a cold than in a warm atmosphere. The function of sensation was unimpaired. During a residence of three months in the hospital, he was subjected to electro-magnetism, and a tonic treatment was at the same time employed. Some improvement appeared, particularly in the flexors, which became slightly increased in bulk, and the disease, which had progressed for two years, was arrested, no new set of muscles becoming affected.

The second case recorded by Dr. Banks is that of a gentleman, 64 years of age, in whom the disease set in after a fall received twenty-four years ago, in hunting, when he was slightly stunned, but soon recovered. The left leg was first affected, then the right wrist, and next the left, but not so completely as the right. The disease progressed for about one year, when its onward course was stayed.

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* Dublin Hospital Gazette, vol. vii., p. 225.

The general health was good, and the intelligence far above that of ordinary persons.

The pathology of the paralysis of Bell and Cruveilhier is the subject of much discussion. Cruveilhier attributed the disease to atrophy of the anterior roots of the spinal nerves, but subsequent researches have not confirmed this view. Many pathologists regard it as a true acinesis, or disease of the muscles themselves, and Dr. Roberts has examined into the evidence, and pronounced a verdict in favor of this view of its nature. He collected the particulars of all the cases that had been recorded at the time of his writing (1858), and analyzed them.

The alterations found in the nervous system were by no means constant. The brain and medulla oblongata were free from disease in every case examined. In 9 out of 13 autopsies the spinal cord was sound; in some, even the microscope failing to reveal anything abnormal. Of the 4 in which morbid states were discovered, there was more or less extensive softening in 3; and in the fourth (Virchow's) there was amyloid degeneration. Great importance attaches to the condition of the anterior spinal roots, in consequence of Cruveilhier's observations. In his two cases he found them atrophied. Schneevoogt and Valentiner found them in the same state in one case each, along with softening of the cord; and Dr. Roberts quotes from Dr. Reade's very excellent description, published in this Journal for November, 1856, of the case that occurred in his practice, an allusion to a case that was examined in the Belfast workhouse, as the only further confirmation of Cruveilhier's observation. On the other hand, it appears that in five cases in which this alteration was specially looked for, it did not appear. These are detailed by Dr. Meryon, in the *Medico-Chirurgical Transactions;* by Landry, in the *Gazette Médicale;* by Oppenheimer, in the same; by Virchow, in *Virchow's Archiv;* and by Laboulbéne, in *L'Union Médicale.* The existence of these five cases we believe, with Dr. Roberts, to be a fact of capital importance in the discussion of the pathology of wasting palsy.

In 6 cases the peripheral nerves were examined; in 3 the motor nerves were more or less atrophied, probably a secondary change. In 2 no change was found. In 2 the sympathetic in the neck was examined; in one, Landry could discover nothing abnormal; in the other, Schneevoogt found that part of the cord in the neck, the lower cervical and some of the thoracic ganglia, had undergone fatty degeneration, a condition that had been diagnosticated during life from the contraction of the pupil.

"To the muscles themselves, therefore," Dr. Roberts says, "we must look for the primordial phenomena of wasting palsy. This opinion is held by Duchenne, Aran, Oppenheimer, Wachsmuth, and Dr. Meryon. Of the nature of the blight that withers the muscles, he is only able to say, with Dr. Meryon, that it is a fatty and granular degeneration of the muscular fibre, similar (often at least) in its anatomical bearings to what is observed in fatty heart, or in muscles which have degenerated from section of their nerves. There would seem to be an error of nutrition in the muscular fibre, not dependent, as Dr. Meryon thought, on a general depression of the nutritive functions—these being almost always in their highest perfection—but brought about under the influence of a peculiar constitutional predisposition or diathesis, by the aid of one or more of the special exciting causes.

" That the entirety of the disease is not comprehended in its local manifestations, and that a constitutional predisposition lies behind these, is made evident by the transmissibility of the disease from parent to offspring; and also by the total inadequacy of the exciting causes, acting alone, to produce the series of events which characterize wasting palsy. An additional proof is seen in the bilateral symmetry of its march. This symmetry, although by no means constant, or always exact, is quite as remarkable as anything presented by pulmonary tubercle, articular rheumatism, or syphilitic or other eruptions of the skin."

But new evidence has recently appeared, making it necessary that judgment should be suspended. Mr. J. Lockhart Clarke, who is so distinguished for his investigations into the minute structure of the spinal cord,* and who has discovered new methods of making microscopic sections of it, has found in two cases disease of the ganglionic corpuscles in this centre, that may prove to be the cause of the muscular atrophy, but may possibly be no more than a consequence or an accidental associate of it. His first case was a well-marked one of the disease, in a man aged 65, who had suffered from it for five years. At the autopsy no important morbid change was apparent, except some undue subarachnoid effusion and some granular alteration of the wasted muscles; but on microscopic examination, Mr. Clarke detected, in the posterior grey substance of the cord, some unnaturally transparent streaks, patches or spots occupied by a granular substance. These spots appeared to be most numerous about the middle of the cervical enlargement, and diminished upwards and downwards. In one of them a vacant space was found, with broken ends of nerve fibres projecting into opposite sides of the space. Around the central canal of the cord and the medulla oblongata, and in the anterior and posterior spinal commissures, there was a considerable deposit of *corpora amylacea.* The floor of the fourth ventricle was covered with minute granular elevations, consisting of aggregations of the ordinary epithelial cells.†

In another case, in which the disease began in the left hand, and extended gradually, till it affected all parts of the body except the face. Mr. Clarke found very similar appearances. In this case the whole cord was atrophied—there was no brachial enlargement whatever. The nerve-cells were found to be in a singular state of atrophy, without nuclei or distinct granular contents. The central canal was about its normal size; but the epithelium around it was increased or hypertrophied. There were no corpora amylacea found, but the connective tissue thoughout the cord, and particularly between the white fibres, was unnaturally abundant; and the increase of it, with the atrophy of the white fibres, caused considerable displacement of the parts of the cord. There was no examination made of the paralyzed muscles.*

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* For abstracts of Lockhart Clarke's papers, see Dublin Quarterly Journal of Medicine, vol. xxix., p. 117, and vol. xxx., p. 451.

† Arch. of Med., Oct., 1861.

Dr. Gull, of Guy's Hospital, has recorded a case which is remarkable for the slight degree of the affection, and the great amount of morbid condition found in the cord. The patient, aged 44, was a journeyman tailor, of sober habits, and always healthy and strong, and had never met with any injury. He was admitted into Guy's Hospital on the 5th of February, 1862. Thirteen months before this the fourth and ring fingers of the right hand became weak and flexed, without any assignable cause. The hand was cold, and there was a feeling of numbness in the fingers, but no pain, and he continued working at his trade. Two months before admission the middle finger of the same hand became suddenly affected, and three weeks before admission the three fingers of the left hand became weak and flexed, but without numbness. The arms were not affected. The interosseous muscles, and those of the thenar and hypothenar eminences, almost completely disappeared, especially in the right hand. The patient died from typhus fever on the eighth of March. On examination, a large cavity was found in the cervical region of the cord, beginning at the fifth nerve, enlarging from that to the seventh, and then tapering downwards, and containing fluid. A chronic cervical *hydromyelus*, comparable to a chronic *hydrocephalus*. What the nature of the change in the cord was, Dr. Gull says, may be a matter for speculation. So far as it affected the grey matter it seemed to be no more than atrophy, from distension of the ventricle of the cord, by an accumulation of fluid in it.†

It is difficult to believe that the condition of the cord in this case was anything more than a coincidence; but on reviewing the whole subject, we must, for the present, say with Dr. Gull, that the disease may arise from primary disease of the muscular elements—or from lesion of the trunks or branches of nerves—or from morbid changes in the grey matter of the cord; and that it is the difficulty of distinguishing the primary seat of the disease in each of these classes of cases, which has led to exclusive, and therefore erroneous, views of their pathology.—*Dublin Quarterly Journal of Medicine.*

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* British and Foreign Med.-Chir. Review, July, 1862, p. 215.

† Guy's Hospital Reports, vol. vii., 1862, p. 244.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

Feb. 9th.—*Excessive Growth of Hair following Applications to the Skin.*—Dr. Ayer reported the case of a man who had been wounded by a ball in the back of the right arm, above the elbow. The bone was uninjured. Thecal inflammation followed, extending down to the fingers. In the course of the disease stimulating applications were made to the arm, after which the hair of the limb grew to a perfect shag, being an inch and three quarters long.

Dr. Ellis had seen a case in which the application of embrocations to the wrist, for a sprain, was followed by a great development of hair.

Dr. Cabot had seen a similar effect follow applications to the knee.

Dr. H. K. Oliver observed that the cicatrices following boils on the back of the neck are often covered with thick hair.

Dr. Hodges had seen a severe case of neuralgia, following a wound in the upper part of the arm, in which various applications, bandages, &c., had been used, and the hair grew to four or five times the length of that on the other arm.

Feb. 23d.—*Malignant Disease of the Skin of the Heel.*—Dr. Cabot showed the specimen, which he had removed from a man who said he had walked much on the part on account of some lameness of one of his toes. The disease affected the true skin, and extended, at certain points, into the subcutaneous cellular tissue.

Dr. Ellis, who had made a microscopical examination of the specimen, remarked that it was composed mostly of cells or nuclei, the former being nowhere large. The nuclei varied in size, some being no larger than a blood-globule, others as large as those of well-marked malignant disease; the last contained large nucleoli. The cell-character of the growth would lead one to fear that a similar one would make its appearannce in the old site, or elsewhere.

Feb. 23d.—*Cyst from beneath the lower Jaw containing round Masses of Atheromatous Matter.*—Dr. Hodges exhibited a cyst and its contents, removed from beneath the lower jaw of a soldier, 40 years of age, The tumor which it formed dated back to the patient's earliest recollection, and at the time of his enlistment, eighteen months since, was not larger than a pullet's egg. During that period it had grown with such rapidity as finally to oblige his discharge for disability. At the time of operation, it extended from the right of the symphysis of the chin to beyond the left angle of the jaw, overlapping the sterno-mastoid muscle. It also projected into the mouth, at the side of and beneath the tongue, rising to the level of the teeth; the whole forming a large tumor, smooth, of uniform density, fluctuating and movable. Its contents, evacuated during the operation, were the ordinary atheromatous matter of epidermal cysts, only remarkable in being rolled up into perfectly round balls, varying in size from that of a pea to that of a nutmeg. These bodies, of sufficient density to retain their shape, constituted the major part of the cyst's contents; there was also, however, a considerable quantity of the same material in a more liquid condition. The cyst itself was removed entire, and presented the usual appearances, having a smooth, glistening interior, with here and there patches of secreting epithelial surface, more or less villous, strongly contrasting, by their dull and cutaneous aspect, with the adjacent portions of the sac.

Dr. Hodges said he was not aware of any description, in any surgical book, of the peculiar condition assumed by the contents of this cyst. He had seen it in two other instances of wens removed from the supra-hyoid and sub-maxillary regions, and supposed it was due to the constant motion which they were subjected to by the action of the numerous muscles of those regions. Nor are these regions spoken of as those in which sebaceous tumors were to be found with the frequency that had been observed in the surgical practice of this vicinity.

Dr. Jackson remarked that these formations had probably, like many other things, been often enough observed, though they may never have been described in the books; and having understood from Dr. Hodges that he was to report his case, he was prepared to refer to several others.

He showed a specimen from the Society's Cabinet, from a patient who was operated upon by the late Dr. Samuel Parkman, in March, 1852, a lad 20 years of age; the tumor occupied the situation of the anterior fontanelle, and had existed as long as he could remember; it was at first about as large as a pullet's egg; it had grown rapidly of late years. On incision, four ounces of a yellowish brown fluid were removed, with a large amount of a whitish, cheesy, semifluid substance, numerous, white, opaque, rounded, fatty masses, generally from three to six lines in diameter, and an abundance of hair. A cast of the tumor, with a daguerreotype of the patient, and the cyst, as well as the balls of fat, are in the Cabinet.

Another case referred to by Dr. J., was operated upon at the Hospital, in April, 1850, by Dr. S. D. Townsend. The patient was a man, aged 45 years. The cyst, which, it was thought, might be congenital, was situated over the middle of the sternum. The inner surface was in part cuticular; and the cavity was filled with balls of fat, epithelial scales and loose hairs. The cyst is in the Cabinet of the Medical College; and this, as well as the first case, was published in the *American Journal of the Medical Sciences.*

The following specimens Dr. J. had seen in Europe, and he made a note of them in reference to the two above reported. 1. In the Museum at St. Thomas's Hospital, London, a subcutaneous cyst, containing balls of fat about half an inch in diameter; and in the same collection was a second quite similar specimen. 2. At Guy's Hospital, balls of fat from an ovarian cyst. 3. In the Museum at the large Hospital at Vienna: many of the balls of the size of a pea, and many as large as a nutmeg. From an encysted ovary. 4. At Guy's Hospital; the balls are two or three lines in diameter, and somewhat soft. 5. In the Museum of the University at Giessen. A cyst connected with the testicle of a goat, and containing hair and balls of fat.

Total number of deaths in Sacramento, Cal., for 1862, 353—males 239, females 114. Born in California and the Pacific States, 169; in the Atlantic States, 88; in foreign countries, 96.

Army Medical Intelligence.

To the Surgeon-General. { HEADQUARTERS, 43D REG'T, M.V.M., CAMP ROGERS, NEAR NEWBERN, N. C., Feb. 17th, 1863.

SIR,—I am reminded by the kind letter that I received from you yesterday, of your desire to hear from the 43d Regiment occasionally. I need not relate to you our trials on board the transport Merrimac, previous to your official visit to that crowded ship: all that is now too well known. I am happy to inform you that, after the men of the 46th Regiment disembarked, we were enabled to cleanse the ship thoroughly. In each hold, the boards of the lower tier of bunks were removed, and the decks carefully scraped and washed by fatigue parties under the supervision of Serg'ts McCollum, of Co. C, and Crabe, of Co. A. The amount of labor performed by these men can be appreciated only by those who witnessed it. As the result of their labors, there was removed from the lower hold, forward, more than six barrels of filth, composed of old bones, decomposed meat, mouldy bread, decayed papers, and the chips and shavings which were evidently made when the bunks were built! In the other hold, aft, as much more such foul material was removed and thrown into the ocean. I think I may safely say, that when, at last, we sailed from Boston harbor, the sanitary condition of our ship was as good as it could be made.

During the voyage, the strictest attention was given to the ventilation and cleansing of the men's quarters. Our passage to Beaufort, N. C., was very pleasant, and, with the exception of one case of fever, no severe sickness was experienced by our men, or those of the 46th who were with us. On the third day out, our Quartermaster, Lieut. H. A. Turner, had the misfortune to wound, accidentally, his right foot by a conical ball from a Colt's revolver. The third metatarsal bone was shattered, rendering necessary the exsection of the anterior half. What appeared remarkable in this case was, that the ball, shot at a range of less than three feet, was broken into four parts; two passing out of the foot at separate points, and two remaining in the wound.

Our troops landed at Morehead City, on the 15th of November, and proceeded at once by rail to this place, where we pitched our tents on one of the immense sandy plains, so common in this part of North Carolina. Since our arrival we have had few cases of serious illness, although nearly every man in the Regiment has suffered from a " cold " or diarrhœa. On the 26th of November, Cornelius Horgan, private of Co. B, who no doubt had pulmonary phthisis at the time of his enlistment, died suddenly in our regimental hospital. James Doyle, a private in the same company, died at the Foster General Hospital at Newbern, on the 9th of December, after a sickness of several days. The diagnosis in both cases was typhoid pneumonia.

In the recent expedition towards Goldsboro', our regiment, in common with others, suffered much from the exhausting march and the want of suitable hospital accommodations. Each regiment had one two-horse transport wagon for hospital supplies, &c. Six two-wheeled ambulances were allowed for our brigade, consisting of five Massachusetts regiments. At times, on the march, these wagons were miles in the rear of our regiment. In consequence of this want of ambulance accommodation, many a brave fellow, sick or exhausted, was obliged to lie by the wayside for hours, or struggle on, waiting for his turn to ride for a short time. I am happy to state here that the officers who had charge of the ambulance train treated our patients with the utmost kindness and consideration.

Although our regiment was for some time exposed to the fire of the enemy at the battle of Kinston, we had none killed or wounded. The morning after the battle, private C. W. Hutchings, of Co. K, was taken seriously ill, and sent to the field hospital under the charge of Assistant Surgeon Treadwell, of the 45th Regiment. He steadily failed, however, and died Dec. 20th, on board the gunboat on her passage to Newbern.

In the battle of Whitehall, Dec. 16th, we lost one man, private Isaac Y. Smith, Co. E, who was killed instantly by a shell. The next day, at Spring Bank, otherwise known as Tompkins's Bridge, near Goldsboro', where the 43d Regiment, with a battery and two companies of cavalry, were for some time engaged with the enemy, Corporal Wm. F. Sparrow, of Co. I, was killed by a bullet through the heart, and Corporal Fuller Morton, of Co. E, was severely wounded in the right clavicle by a conical ball. He has since died of his wounds, at the Foster General Hospital. In the last two actions, several other men were slightly wounded, but as they do not wish to be immortalized on this account, and as their cases were not of much gravity, I forbear to give their names. Some of our soldiers are still suffering from the results of the severe marching on this expedition.

My worthy and able assistant, Dr. Augustus Mason, reported for duty in this camp on the 30th of November, and has relieved me of many cares. On the 10th of December, Dr. Mason was detailed as acting Surgeon of the 51st Mass., which place he filled until the return of our Army from the expedition, on the 21st of December. During this period, Lieut. O. H. Webber, of Co. I, formerly apothecary of the Mass. Gen. Hospital, was detailed as acting Assistant Surgeon of this regiment, and was placed in charge of the ambulance train, until relieved by Dr. Kneeland, of the 45th, on the morning after the battle near Goldsboro'.

On the 17th of January, the 43d, 45th and 51st Mass. Infantry, with the 3d N. Y. Cavalry, and two sections of a battery, under acting Brig. Gen. Amory, started on a reconnoissance in force, in the direction of Trenton and Onslow's; and returned on the 21st, without the occurrence of casualty or serious illness to any member of our regiment.

The health of this regiment, at the present date, is remarkably good. For some time past the attendance at our "sick call" has been decreasing.

The following is a list of our patients in the regimental and general hospitals.

Regimental Hospital.—Privates G. S. Bates, Co. F, hæmoptysis, doing well: Z. M. Bisbee, Co G, bronchitis, improving: Albert M. Coy, Co. D do., doing well: G. A. Hatch, Co. F, pleuritis, do.: Hollis Hersey, Co. K, rheumatism, improving: J. H. Kimball, Co. H, ephemeral fever, convalescent: William Marsh, Co. D, bronchitis, improving: Calvin Williamson, Co. F, gun-shot wound of first metatarsal bone, doing well.

Foster General Hospital.—Privates A. E. Ellis, Co. E, acute ophthalmia; Henry E. Fuller, Co. G, typho-malarial fever, convalescent; Corp. C. W. Sparrell, Co. F. gastritis.

Stanly General Hospital.—Privates Thos. Campbell, Co. K, carditis; Isaac Cox, Co. D; A. E. Patrick, Co. H, hepatitis; I. B. Tilley, Co. A, fever.

In addition to those mentioned above, we have about twenty men slightly ill, in quarters. Six persons have been discharged from the service since our arrival at Newbern for disability.

With sentiments of the highest regard,

I am, yours truly, A. C. Webber,
Surgeon 43d M.V.M.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MARCH 26, 1863.

University Lectures.—An important change has recently been made in the internal government of Harvard College, which will, we think, do much towards raising this institution to the real rank of a university. Hitherto the undergraduate department, which corresponds to the gymnasium or preparatory course for youth in foreign universities, has occupied an unduly prominent position, and the other departments, devoted to the instruction of graduates and young men in the professions of divinity, medicine, law, and the natural sciences, have been considered merely as schools attached to it. There has been, to be sure, a separate faculty over each of these schools, composed of its own officers of instruction, in which was vested the control of the individual department, but which had no voice in the general administration of the college, so that in fact these higher departments of the University have become merely special schools, in no way connected with each other except by a common president. The faculty of the undergraduate department, on the other hand, has always exercised a governing power over the University as a whole, and the president has always, until recently, been chosen solely for his fitness for this, the least important department, alone. In foreign universities the gymnasium holds its proper subordinate rank, which is that of fitting the youth for an entrance into the higher professional departments. Like these it is presided over by its own dean, but the *rector magnificus*, or general president, is chosen yearly and in turn from each of the four grand departments. In this way no particular faculty can exercise any undue authority in the general administration of the university, and yet all may have a voice in determining the proper course of preparatory tuition to be used in the gymnasium. So in our own University it should be the professional schools which should govern the undergraduate department, and give it its true character. Instructors in literature and mathematics can know nothing of the wants of the medical department, but, on the other hand, the medical faculty are the proper judges of the requisite preliminary training to fit a youth for the study of medicine, and should have a voice in the direction of these matters. We were pleased, therefore, to see that by a recent vote of the Corporation the general internal government of the University is to be administered by the united faculties of the various departments as a body, which is to hold regular meetings, and we have no doubt that the interests of the college will in this way be materially advanced.

Privilege has also been granted to the various schools to employ instructors in their respective branches not officially connected with the University, so that not only may gentlemen distinguished in science and literature now be called to deliver lectures within its walls, but any person, even unconnected with the University, may have the benefit of such instruction. We give below the announcement of a series of such lectures to be given at Cambridge during the present term, some of which will be of great importance both to the medical student and the physician. The same system may be employed with advantage also in the medical department, as in the great medical schools of Europe, which owe half their renown to this system of special instruction, given by gentlemen not holding regular chairs in the University. It is, in fact, from peculiar aptitude in imparting instruction exhibited in this way, and the reputation thus gained, that the professors obtain their appointments. There are many subjects which cannot be properly treated in the short general course of lectures delivered during the winter session to the medical class, and no doubt the medical faculty will also avail itself of the privilege thus granted it of inviting the assistance of others in imparting to students instruction in special branches, as has already been done to a small extent.

"HARVARD UNIVERSITY. *Second Term*, 1862–3.—The following lectures will be delivered at the times and places designated below.

"Persons wishing to attend either course must enter their names at the Steward's Office at least three days before the course commences.

"Members of the Divinity, Law, Medical and Scientific Schools, graduates of this and other Colleges, Officers of the University, and teachers of public schools, have a right to admission by entering their names; undergraduates are not admitted; other persons may be admitted to all the courses of a term on the payment of five dollars when entering their names. The entrance of three names for a course will secure its delivery, provided three hearers be present.

"The rights, defined in the catalogue, of resident graduates and members of the professional schools, to attend certain lectures in the undergraduate department, are not affected by this arrangement.

"1. *On the Natural History of the Cretaceous Period.*—By Prof. Agassiz, at the Museum, every Monday, at 3, P.M., beginning March 23.

"2. *On the Connection of Physical and Mathematical Sciences.*—By Prof. Peirce, in No. 20 University Hall, every Tuesday, at 9, A.M., beginning March 24.

"3. *An Introduction to the Study of Insects injurious to Vegetation.*—By Samuel H. Scudder, S.B., at the Museum, every Thursday, at 3, P.M., beginning March 26.

"4. *On the Classification of Sciences.* By President Hill, in Harvard Lecture-room, every Saturday, at 11, A.M., beginning March 28.

"5. *Outlines of the History of the Art of Design.*—By Mr. Louise Thies, Curator of the Gray Collection, every Monday, at 10, A.M., commencing March 30.

"6. *On the Anatomy and Embryology of Acalephae.*—By Assistant-Professor H. J. Clark, at the Museum, every Wednesday, at 9, A.M., beginning April 1.

"*On some of the Characteristics of the Medieval Revival of Learning.*—By Mr. Charles E. Norton, in Divinity Hall, every Tuesday, at 4, P.M., beginning April 7.

"8. *On the Embryology of Echinoderms and Radiates generally.*—By Assistant Alexander E. Agassiz, at the Museum, every Tuesday and Friday, at 3, P.M., beginning April 28.

"9. *On English Literature.*—By Professor Lowell, in Boylston Hall, every Thursday, at 4, P.M., beginning May 7.

"10. *Four Lectures on Musical Form.*—By Mr. J. K. Paine, instructor in music. In June and July, on days to be announced hereafter."

DEATH OF DR. CHARLES HOOKER.—It is with regret that we announce the death of the distinguished physician, Dr. Charles Hooker, of New Haven, on the 19th inst., at the age of 64. The deceased had been a supporter of our JOURNAL almost from its beginning, and in past years communicated many valuable articles for our pages. From an obituary in the *New Haven Daily Palladium* we make the following extract:—

"Dr. Hooker was born in Berlin, in this State, a descendant of that eminent and gifted man who was the leader of the first settlers of Hartford, the Rev. Thomas Hooker. He graduated with honor in Yale College, in 1820, in the class of which President Woolsey and Dr. Bacon were members. On graduating, as he afterwards did, from the Medical Institution of the College, he began practice in this city, and from that time to this he has been known as one of the busiest and most indefatigable men in this community. In 1838 he was appointed to the chair of Anatomy and Physiology, and the numerous graduates of the Medical School can testify to his great skill and energy as a teacher.

"The character of Dr. Hooker was not a common one. An independent thinker, his energy prompted him to press his views upon the minds of others, and he therefore made a decided impression upon the principles and practice of his brethren in the profession. No man ever showed more earnestness and assiduity in his calling, and these were just as manifest in his last days, when most men incline to some relaxation of their labors, as they were when the ardor of his youth was upon him. Faithful and energetic to the last, he exposed himself freely to cold and fatigue, in behalf of some patients in whom he felt a deep interest, even after his sickness had fairly begun, and so he may be said to have died in the very midst of his labors. What we deem to be the grand fact of his professional life, standing out prominent before all others, and written in deep lines upon the hearts of multitudes in this community, is, that he performed his labors for the sick irrespective of reward, for he was just as ready to obey the calls of the poor as those of the rich. The genial and ardent social qualities of Dr. Hooker added much to his influence, and therefore his usefulness, as a physician. We may add to this brief notice the fact that he was a member, for we know not how many years, of St. Paul's church, and none will more deeply feel his loss than the pastor and members of that church."

MASSACHUSETTS GENERAL HOSPITAL.—From the Annual Report of the Resident Physician of this institution, Dr. B. S. Shaw, it appears that the number of patients admitted to the Hospital from Jan. 1st, 1862, to Jan. 1st, 1863, was 1611. Discharged during the year, well, 843; much relieved, 152; relieved, 279; not relieved, 77; not treated, 138; died, 101; insane and eloped, 16. Total, 1606. Proportion of deaths to the whole number of results, 6·3 per cent. Number of applicants not suitable for treatment, to whom admission was refused, 277.

The report of Dr. S. L. Abbot, Physician to Out-patients, shows how liberally the benefits of this noble charity overflow its relatively narrow walls to relieve the sufferings of those who do not require to be attended to within them. The number of these applicants during the year was 4975.

The following are the results of the McLean Asylum for the Insane, extracted from the valuable report of the Superintendent, Dr. J. E. Tyler:—

"Since January 1st, 1862, 270 persons—127 males and 143 females—have received the aids of the Asylum. The average number of patients in the house has been 190. To-day, the register gives the names of 176 persons, of whom 78 are males and 98 are females. Eighty-two have been admitted during the year—40 males and 42 females; and in the same time 94—49 males and 45 females, have been discharged. Of these, 39 were *recovered*—18 males and 21 females. Fourteen were *much improved*, 7 of each sex. Thirteen were *improved*—7 males and 6 females. Ten—6 males and 4 females—were *not improved*; and 18—11 males and 7 females—have *died*, and these, with two exceptions, were persons the commencement of whose disorder dated back many years. We have had but little sickness, and none of an ordinary acute type."

During the year the edifice "for the accommodation of the most demonstrative forms of mental disorder" has been completed, and an addition to the size of the pleasure grounds has been made, so as to admit of riding and driving within the enclosure. While the war has been productive of some mental disease, it seems, also, as appears from the small number of admissions registered, both in this and other institutions, to have acted in its prevention. Dr. Tyler's report is devoted principally to a consideration of the early manifestations of insanity and its causes, and the timely warnings thus lucidly described should not be allowed to waste themselves within the covers of an annual report, but should be read and remembered by all. With a proper tribute to the memory of Dr. Bell, for twenty years superintendent of the Asylum, this highly suggestive and interesting report closes.

PENSION EXAMINING SURGEONS.—The following list comprises the appointments which have thus far been made in Massachusetts, under the provisions of the eighth section of the pension act of July 14th, 1862:—Drs. Geo S. Jones, B. S. Shaw, S. L. Sprague, Boston; Dr. J. W. Graves, Chelsea; Dr. Foster Hooper, Fall River; Dr. C. L. Fish, Jr., Greenfield; Dr Nathan Allen, Lowell; Dr. W. H. Burleigh, Lawrence; Dr. S. A. Fisk, Northampton; Dr. J. H. Mackie, New Bedford; Dr. O. S. Root, Pittsfield; Dr. Oramel Martin, Worcester.

MASSACHUSETTS COLLEGE OF PHARMACY.—At the annual meeting of the Massachusetts College of Pharmacy, the following members were chosen officers of the College for the ensuing year:—Thomas Hollis, *President*. Charles A. Tufts, Samuel M. Colcord, *Vice Presidents*. Henry W. Lincoln, *Recording Secretary*. James S. Melvin, *Corresponding Secretary*. Ashel Boyden, *Treasurer*. Joseph T. Brown, *Auditor*. Daniel Henchman, Elijah Smalley, Augustus P. Melzar, Isaac T. Campbell, John Buck, Albert G. Wilbor, Robert R. Kent, George D. Ricker, *Trustees*.

HENRY W. LINCOLN,
Recording Secretary.

Army Medical Appointments.—The following commissions in the Massachusetts Volunteers have been issued by direction of His Excellency John A. Andrew, Governor and Commander-in-Chief:—

First Regiment.—Neil K Gunn, M.D., of Boston, to be Assistant Surgeon, March 18, 1863, vice Munroe, promoted Surgeon Fifteenth Regiment Volunteers.

Second Regiment.—James Wightman, M.D., of Boston, to be Assistant Surgeon, March 19, 1863, vice Stone, promoted Surgeon.

Tenth Regiment.—John H. Gilman, M.D., of Lowell, to be Assistant Surgeon, March 18, 1863, vice Jewett, promoted Surgeon Fifty-first Regiment M.V.M.

Thirteenth Regiment.—Edgar Parker, M.D., of Bridgewater, Assistant Surgeon.

Nineteenth Regiment.—William D. Knapp, M.D., of Boston, to be Assistant Surgeon, March 19, 1863, vice Taft, discharged.

Twentieth Regiment.—John G. Perry, M.D., of Boston, to be Assistant Surgeon.

Twenty-sixth Regiment.—Lorenzo S. Fox, M.D., of Lowell, to be Assistant Surgeon, March 16, 1863, vice Russell, discharged.

Thirty-second Regiment.—Samuel L. Young, M.D., of Boston, to be Assistant Surgeon, March 16, 1863, vice Bigelow, discharged.

Thirty-third Regiment.—Murdock McGregor, M.D., of Boston, to be Assistant Surgeon, March 19, 1863, vice Gage, discharged.

Thirty-fifth Regiment.—George W. Snow, M.D., of Chelsea, to be Surgeon, March 13, 1863, vice Lincoln, discharged.

First Regiment of Cavalry.—George S. Osborn, M.D., of Danvers, to be Assistant Surgeon, March 17, 1863, vice DeWolf, promoted Surgeon Second Cavalry Regiment.

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, March 21st, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - - -	57	45	102
Ave. mortality of corresponding weeks for ten years, 1853—1863,	44.3	37.6	81.9
Average corrected to increased population - - - -	00	00	93.38
Death of persons above 90 - - - - - - - -	1	1	2

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
15	13	3	5	0	1	1	2

Journals Received.—American Medical Times, vol. vi., Nos. 9, 10, 11 and 12.—Medical Record of Australia, vol. ii., Nos. 5, 6, 7, 8, 9, 10, 11 and 12.—Edinburgh Medical Journal, February, 1863.—American Phrenological Journal, vol. xxxvii., No. 3.—The Lancet, Nos. 2, 3, 4, 5 and 6, for 1863.—The Chemist and Druggist, vol. iv., No. 42.—American Druggists' Circular, vol. vii., No. 3.—The Dental Register of the West, February, 1863.—Medical News and Library, March, 1863.—Ohio Medical and Surgical Journal, March, 1863.—Pacific Medical and Surgical Journal, January and February, 1863.—Buffalo Medical and Surgical Journal, March, 1863.—Cincinnati Medical and Surgical News, February, 1863.—American Journal of Ophthalmology, vol. i., No. 4.—Dental Cosmos, March, 1863.—Cincinnati Lancet and Observer, March, 1863.—Journal de Médecine de Bordeaux, February, 1863.

Married,—At Roxbury, 18th inst., Dr. John G. Perry to Miss Martha D. Rogers.

Died,—At Newport, R. I., 17th inst., Joshua J. Ellis, M.D., 36.

Deaths in Boston for the week ending Saturday noon, March 21st, 102. Males, 57—Females, 45.—Accident, 3—asphyxia, 1—congestion of the brain, 2—inflammation of the brain, 1—bronchitis, 1—consumption, 15—convulsions, 4—croup, 13—cyanosis, 1—debility, 2—diphtheria, 2—dropsy, 3—dropsy of the brain, 6—drowned, 1—dysentery, 1—erysipelas, 1—scarlet fever, 3—typhoid fever, 1—hæmoptysis, 1—disease of the heart, 2—infantile disease, 3—insanity, 1—disease of the liver, 1—congestion of the lungs, 4—gangrene of the lungs, 1—inflammation of the lungs, 5—marasmus, 3—necrosis, 1—old age, 2—paralysis, 5—puerperal disease, 2—inflammation of the thigh, 1—sore throat, 3—tumor (ovarian), 1—unknown, 4—whooping cough, 1.

Under 5 years of age, 44—between 5 and 20 years, 5—between 20 and 40 years, 22—between 40 and 60 years, 19—above 60 years, 12. Born in the United States, 70—Ireland, 24—other places, 8.

THE
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SUBCUTANEOUS INJECTION OF SULPHATE OF ATROPINE IN SCIATICA, WITH POISONOUS EFFECTS.

[Read before the Suffolk District Med. Society, and communicated for the Boston Med. and Surg. Journal.]

By A. D. Sinclair, M.D.

Mrs. ——, 28 years of age, tall, stout, and fair complexion, enjoying good general health, had, after exposure to cold and damp, six or seven years ago, an attack of severe pain in the lumbar region and left hip, lasting a long time, for which she was leeched and blistered, and took drugs. Has had occasional pains about the same place since then, but nearly free from trouble for the two years previous to the present attack. Has never had general rheumatism. In March, 1860, I attended her in confinement. At that time she complained much of her back and hip.

On July 26th, I was sent for to relieve her, if possible, from the pain and aching, which had now lasted for over four months, so constant and intense, of late, as to interfere with her necessary rest. During the night her sleep was frequently broken, for a slight motion of the body or twitch of the leg excited great pain in the affected parts; during the day, also, the suffering at times was great. For several weeks she had been confined to the house, at times wholly unable to walk, and when pain permitted slight locomotion her gait was limping, with the body bent forward. She moreover suffered a good deal from dyspepsia, caused by her almost total inability to move about.

On examination, dull pain is complained of when pressure is made over the sciatic nerve in the left hip and sacral region. Twelve minims of bimeconate of morphia were injected into the areolar tissue in the latter part, and twenty minims into the former. Five grains of sulphate of quinine thrice daily in pill.

July 27th.—Some retching after injection, but no vomiting. Perspired profusely during night and was restless, but had no pain; complains now only of a bruised feeling at seat of puncture.

30th.—Has had slight tinnitus aurium since yesterday, after taking ten pills. Pain in limb returned in about twenty-four hours after the injection, but now at the commencement of the lower third of thigh. Very soon, however, the old sensation returned in the hip, but at the flexure, a point lower down than at first. Thirty minims of a solution of sulphate of atropine, two grains to one ounce of distilled water, were injected into the latter place. I left the house in about half an hour, up to which time there was nothing peculiar in the feelings or behaviour of the lady, so far as I could ascertain. This was at 12 o'clock, noon. At 2½, P.M., I was sent for in great haste. Her residence being in one of the suburbs, it was 3, P.M., before I reached the house. I found her lying on a lounge, in a deep stupor, from which she could be partially aroused with the greatest difficulty; face and neck covered with a deep scarlet rash; extreme dilatation of the pupils; pulse about 140, small; great subsultus tendinum; is reported to have been delirious previous to falling into the present stupor. On arousing her, she made several futile attempts to articulate, but her voice was gone, and the mouth exceedingly dry. The condition of aphonia was suggestive of the attempts made by one while in nightmare, when the whole force of the voice is supposed to be exerted, and the result scarcely an audible whisper. An attempt is made to get her upon her feet, that motion might dispel the stupor, but her limbs refused their support, and bent like wands beneath the body; power had for the time departed from them. This lack of power did not obtain in the upper extremities, for she frequently made efforts of resistance, as will be seen, during the progress of the case. The rash, so marked upon the face and neck, seemed to be an extreme congestion of the capillary vessels of the skin, and appeared to me more vivid than I had ever observed in a marked case of scarlet fever. Water was placed to her lips, but she made no attempt to drink; poured into the mouth in small quantity, but there was total inability to swallow. This, indeed, was an alarming state of things. What could be done to relieve her? The drug had not been administered by the stomach, but absorbed from a remote part of the body, hence had already permeated the whole system. Stomach-pump and emetics, &c., could be of no use here. No appearance of recovery had as yet taken place; on the contrary, the stupor seemed to be deepening. I had recently read, in a late number of the *American Journal of Medical Sciences*, of *cold affusion* to the head having been successfully applied to arouse a patient from the narcotism produced by an overdose of belladonna, and resolved to try its effects in this case, as the only resort within my reach. Electricity suggested itself, but this was not available without much loss of time. Cold water was then poured upon her from a pitcher, elevated a foot or so above the head. The affusion was persevered in until she began to gasp and offer resistance; this last became, to my great delight, quite strenuous, showing that consciousness to external impressions was beginning to be felt. Still the water was poured on the head, but now not so continuously; persistence in this course being justified and rewarded by increasing sensibility, mental and physical. Gradually her voice became audible. Still, she appeared insensible to the nature of the proceedings; kept picking and grasping at imaginary objects, possessed of pleasant or ludicrous mental fantasies, exciting herself and others to laughter, making various efforts to articulate, but in vain. The cold douching was continued at least thirty minutes, after which she appeared restored. She could now stand steadily, but could not walk. In a state resembling one in extreme bewilderment, she was laid upon her bed, from which she made several attempts to roll off, evidently imagining herself to labor under another condition of things than really existed. I remained by her for nearly three hours, and was cheered by her gradual and steady return to consciousness, and the disappearance of symptoms at one time so alarming as to threaten life itself.

At 8, P.M., she answered questions rationally, but slowly, and was easily confused. She had no recollection of what had passed; the seven preceding hours were a blank in her existence, at least so far as memory was concerned, and she spoke of the events of noon as the last of which she had any distinct remembrance. She was ordered a purgative, and the infant to be removed from the breast for the twenty-four hours following.

Aug. 2d.—The bad effects of the atropine have all disappeared. No return of pain in region of former injections. Complains now of a prickling, uneasy sensation beneath the lower half of biceps. Can walk well. Has taken twenty-four quinine pills; tinnitus aurium now present. Twenty-five minims of bimeconate were injected at the point complained of.

4th.—Uneasiness as on the 2d; also some pain in the outside of leg. This time, instead of injecting at the point where uneasiness was referred to, I sent thirty minims of the bimeconate into the flexure of the hip, but injected twenty-five minims into the pained part, over lower end of upper third of fibula.

20th.—Better for the past fortnight than she has been for nearly five months. Feeling much stronger, she undertook the arrangement of some neglected household affairs, requiring unusual exertion, got heated, and the weather at the time being somewhat damp, she was seized with lumbago, but not severe, exciting pain in the hip. Again she submitted to injection, and fifty minims of the bimeconate were sent into the affected part. About a week subsequently, thirty minims were injected into the outer part of lower third of fibula. Was ordered five grains of iodide of potassium three times daily.

The potash was continued for nearly a month. She suffered no pain in limb after last injection. Now (four weeks from last injection) entirely free from all uneasiness.

Note.—November 29th, 1862.—There has been no return of the sciatica since. It is beyond doubt, in my mind, that the treatment of sciatica, and other cases of neuralgia, has been much more successful since the use of subcutaneous injection as a therapeutic agent. I believe that the recovery in the above case can neither be attributed to the quinine, the potash, nor the injection alone, but to the whole combined. When neuralgic pain is very severe, requiring large doses of morphia to make life endurable, the latter is apt to affect the stomach and bowels and destroy the appetite. The local use of morphia obviates all this. It is true that in some cases distressing nausea and vomiting ensue upon injection, but in my opinion this is referable to an idiosyncrasy of the individual. This troublesome effect of injection is absent in some, and may be avoided in others by gradually increasing the quantity injected. Another great advantage derived from the use of morphia in this way, is the instantaneous relief it brings to the sufferer, a matter of great importance in the treatment of disease. For these advantages, then, the more extensive use of subcutaneous injections ought to be resorted to. Disappointment would very certainly attend an attempt to treat neuralgic affections by this means alone, for it is necessary to combine it with the free use of alteratives and tonics, as iodide of potassium, iron, &c., and a nutritious diet. If these means are faithfully and persistently pursued, and the neuralgia not arising from any unusual cause, failure, in my opinion, will be more rarely experienced than usual in this otherwise untractable kind of cases.

VENTILATION.

[Communicated for the Boston Medical and Surgical Journal.]

Messrs. Editors,—The following article, in reference to ventilation, has been widely circulated in the newspapers of the day. It sets forth a theory which, though obviously fallacious, is nevertheless worthy of criticism, when we consider the high source from which it emanated:—

"A new Theory of Ventilation.—The French Academy of Sciences, at its last meeting, listened to a paper from M. Delbruck, which, if well founded, will upset a good many of our existing notions about ventilation. M. Delbruck has made some researches on the quantity of air required for breathing during sleep. It strikes him as singular that, while all medical men are unanimous in prescribing several cubic metres of pure air for each person sleeping in a room as absolutely indispensable for health, all animals appear to shun the open air as much as possible in order to compose themselves to sleep. Thus, the lion and tiger retire to some dark cavern, where the air is confined; the dog goes to his kennel, and thrusts his snout under his belly; birds, to which the open air would appear to be necessary, whether asleep or awake, retire to some private corner and put their head under their wings. Nay, what does the schoolboy do, when left in a dormitory aired with particular care? If he finds he cannot fall asleep, the first thing he does

> is to bury his head under the bedclothes. Hence M. Delbruck concludes, that if when awake we exhale a quantity of carbonic acid, we must inhale a certain quantity of this gas during sleep, just as plants exhale by day the oxygen they absorb by night."

In reference to the facts here given to substantiate a truly novel theory, we would suggest that they are susceptible of quite a different interpretation. The lion and tiger have recourse to caverns for coolness; the dog thrusts his nose under his body for warmth; the bird puts its head under its wing for a similar reason; and the boy buries his head under the bedclothes because he is either cold, or, what is perhaps not unfrequently the case, *frightened.*

I know it is a popular prejudice, supported by high medical authority, that exposure to "night air" is perilous for ordinary persons. The grand error is made in concluding that it is *necessarily so under all circumstances.* I doubt if there is one individual among a thousand confirmed invalids who could not, even in the winter-time, speedily, safely and very advantageously acquire the ability to endure a perceptible draught of "night air"; and whether the brunt of it be received by the face or the back of the head, the latter being as little susceptible to the influence of a draught as the former, under an equal amount of exposure.

The evils resulting from breathing, night after night, an atmosphere becoming more and more vitiated as the morning approaches, probably equal, if they do not exceed, those resulting from the intemperate use of spirituous liquor. Indeed, it is questionable whether a craving for stimulants has not been occasionally created by this abominable yet prevalent custom of keeping the windows of a sleeping apartment either entirely closed, or opened but a "crack." They should be widely opened every night throughout the year, unless the weather is intensely cold, or the wind unusually violent, or some other valid reason exists for mitigating a draught.

Were this practice universally adopted, a surprising reduction would be quickly manifested in the frequency of morning headache and nausea, dyspepsia, chronic catarrh, croup, diphtheria, influenza, measles, scrofula, consumption, scarlet fever, smallpox, typhus fever, felon, whitlow, erysipelas, and many other disorders, which are more often induced by an infected atmosphere, than any other cause.

In recommending a draught, I am not advocating a whirlwind or a hurricane, but merely such a current of air as will supply the lungs during each night with from eight to ten thousand instalments of pure, fresh, free oxygen, in a quantity fully equal to any possible demand of the human system. Stagnant air cannot supply this want, neither can air that is in motion if it be not *perceptibly* so; nothing less than a draught, moderate, but decided, and continuing throughout the night, can meet in every respect the requirements of health.

Of the many and remarkable advantages of sleeping in the open air, or what may be regarded as the same thing, I can speak from thirteen years experience. Commencing the practice rather abruptly in the winter of 1850, and without suffering any serious inconvenience from the initial trial, I became in a few weeks nearly as invulnerable to the assaults of a freezing cold blast as a salamander to fire. From that time to the present, I have not once suffered from any pulmonary affection, and, except in very rare instances, have been utterly exempt from any illness that could be traced to a night-draught exposure. In short, a practice which M. Delbruck may be thought to regard as unnecessary, unnatural, and consequently fraught with danger, I have rigidly observed for a series of years as one of the most important of all the means that I have hitherto adopted for indefinitely promoting health, strength and development.

The following are a few of the many examples that might be cited to show how horrible may be the effects of a vitiated atmosphere:—In the year 1756, during a rebellion in India, one hundred and forty-six persons, chiefly English, Dutch and Portuguese soldiers, were imprisoned by the natives in the Black Hole of Calcutta, which was nothing more nor less than an apartment eighteen feet square and about sixteen feet high, and furnished with two grated openings on one side for the admission of light and air. During a confinement of twelve hours, one hundred and twenty-three perished, and the remainder were subsequently attacked with "putrid fever," which proved fatal in most of the cases.

In the year 1797 or '98, during a storm at sea, seventy men, women and children were kept for a short time in the hold of a small vessel, the hatches of which had not only been "laid over," but, for better security, "battened down." The death of the entire number was the result. In December, 1848, also during a storm, one hundred and fifty passengers were enclosed in the same hermetical manner, in the steerage cabin of the steamer "Londonderry," while on its passage from Liverpool to New York. Soon half the number perished by suffocation, and it is very probable that the rest would have speedily met with a similar fate, had it not been for the strength of one man, who succeeded in bursting open the door of the narrow companion way, although the captain of the steamer had taken especial pains to prevent such an occurrence.

The following are a few examples to illustrate the importance of a thorough system of ventilation in cases where little if any complaint had been made of inattention to this hygienic measure:—There was once in Glasgow an assemblage of buildings attached to a factory, which were occupied by about five hundred persons—one family to each room. For a long period, an immense deal of sickness had pervaded the buildings, which the inmates seemed to regard as a mysterious dispensation of Providence, for they obstinately refused to adopt such sanitary expedients as had been repeatedly advised them. At length the proprietors of the establishment, despairing of ever making the inmates appreciate the importance of occasionally opening windows, resolved to apply a system of ventilation which should be thorough, continual, and utterly beyond the control of those subjected to it. They accordingly connected each room, by means of tubes, with the chimney of the factory furnace, and compelled every occupant, whether willing or unwilling, to be exposed daily and nightly to a draught of air. The result was, that sickness of every kind rapidly diminished, and one disease—typhus fever—which had frequently raged as an epidemic, became for eight years "scarcely known in the place."

In 1832, at Norwood School, in England, scrofula made its appearance among six hundred children, and destroyed a great number of them. The disorder having been attributed to an insufficiency and bad quality of food, a scientific investigation was made, and a decision given that the food was "most abundant and good"—that "defective ventilation, and consequent atmospheric impurity," was the cause of the sickness. A thorough system of ventilation was immediately applied, and scrofula rapidly disappeared, nor did it ever recur, though the number of pupils was gradually increased to eleven hundred.

In a hospital at Dublin, 2,944 deaths took place in four years. A better system of ventilation having been resorted to, as a means of lessening the mortality, it was found that during the next four years the number of deaths was only 279.

The above facts are merely selected from a long array of similar character, which tend to show the paramount importance of breathing an uncorrupted atmosphere. It is certainly no exaggeration to say that were the public as particular as they should be, and easily might be, about the quality of that subtle fluid, which enters and departs from an average pair of human lungs about a thousand times in an hour, and nearly nine million times in a year, the bills of human mortality would be reduced one third at least, and the average duration of human life be nearer seventy than forty.

Park Street. G. B. WINDSHIP.

CANCER OF THE STOMACH.

[Read before the Suffolk District Med. Society, and communicated for the Boston Med. and Surg. Journal.]

By WM. H. PAGE, M.D., BOSTON.

THE following is a case of cancer of the stomach, interesting in regard to diagnosis, mildness of symptoms, absence of many, great extent of local lesion, as well as morbid anatomy and hereditary taint.

The patient was a lady of 55 years, and had six children, all alive and in perfect health. She belonged to a long-lived and very healthy family from Maine, only one, an aunt of seventy, having died of cancer, and that of the breast.

She was of a nervous sanguine temperament, brown hair, clear complexion, possessed of uncommon energy, and enjoyed perfect health till two years ago, when she began to have pain and uneasiness at epigastrium, which was constant and even slowly on the increase.

I first saw her three months ago, when I found at the seat of pain a tumor, recognized seven months before, of the size of the fist, the larger half being at the left of the median line; which one could see as well as feel to beat in unison with the heart; and had been diagnosticated as aneurism of the aorta. But the stethoscope betrayed none of the sounds heard in that disease, and the arteries of the lower extremities nothing unusual, in consequence of which I did not hesitate, in conjunction with her extreme emaciation, dirty-yellow skin (the conjunctivæ being of the color observed in severe jaundice), and general cachectic look, to pronounce it cancer of the pylorus, notwithstanding all absence of nausea, marked difficulty after taking food, constipation, diarrhœa, as well as inability to move the tumor, though the extreme suffering which soon followed the examination by others caused me not to aim at being too exact on this point.

She had no fever; her appetite was small, but regular, never losing a meal, and eating at no other than the regular time. She could eat almost anything without much increasing her distress, yet her loss of teeth, if nothing else, made her naturally prefer liquids, except milk, which soured on her stomach.

I prescribed the liquor opii compositatis of Squibb, which I found to suit her best, and with from thirty to forty drops of this she was able to sleep well at night (sometimes all night), and be quite easy during the day, more so than at any period of the previous six months. This dose continued to give her a comfortable night till nausea commenced, nine days before death.

After about a month (two months before death), she went on a visit far down in Maine, where she stayed four weeks. On her return, I found she looked worse, though she still kept about her house till Jan. 6th (nine days before death), when nausea commenced, which on the 12th, for the first time, resulted in vomiting. At this time she discharged from her stomach about a pint, of the usual coffee-ground appearance, which was repeated on the next day to the same amount, for the *last* time, though the nausea continued, with ineffectual retching.

During these two days, she for the first time refused a small amount of nourishment, gave up the general direction of her household, which she had constantly maintained to the time of vomiting, and died on the 15th, her last stool (two days before death) being perfectly natural, never having had constipation, diarrhœa or flatus.

Post-mortem.—The stomach was removed about twenty-four hours after death, and contained about a pint of the above-named coffee-ground liquid, with about a teacupful of the fragments of the encephaloid mass, of various sizes, some being as large as a shellbark. I sent the specimen to Dr. Jackson, who gives the following result of his examination:—

On dissection, the stomach was found to contain a considerable quantity of grumous bloody fluid, and to be in a state of the most profound cancerous degeneration. The disease was limited by the pylorus, and one half of the whole organ, at least, was affected; the rest being perfectly healthy. The form of cancer was the encephaloid; the brain-like, and also the xanthoid structure, being to a considerable extent well marked. The surface was quite rough, but not irregular; and about the confines of the disease the deposit was first seen in the submucous cellular tissue. The whole under surface of the left lobe of the liver was connected by old and firm adhesions to the stomach; and from the inner surface of this last to within about a line of the anterior surface of the liver, the cancerous structure was continuous. About the junction of the stomach and intestine, towards the spine, the lymphatic glands formed a cancerous mass about half as large as the fist; and in the submucous cellular tissue of the duodenum, within an inch or two of the pylorus, there was a little of the morbid deposit. The head of the pancreas seemed also to be diseased, though the body of the gland was healthy; as were the right lobe of the liver and the rest of the organs.

ON THE CALABAR BEAN AS A NEW AGENT IN OPHTHALMIC MEDICINE.

By D. Argyll Robinson, M.D., F.R.C.S.E., Lecturer on Diseases of the Eye, Edinburgh.

For more than a year past I have recognized the numerous advantages that would flow from the discovery of a substance which, when applied to the conjunctiva, should produce effects exactly opposite to those well known to result from belladonna or atropine; which should stimulate the muscle of accommodation and the sphincter pupillæ as the above-named remedies paralyze them. With the view of discovering such an agent, I endeavored to ascertain from experiments of my own, and from the writings of previous observers, whether any of the common vegetable principles possessed this property. These investigations were, however, productive of no satisfactory results, until my friend Dr. Fraser informed me that he had seen contraction of the pupil result from the local application of an extract of the ordeal bean of Calabar. I resolved to investigate the action of this substance, and, above all, to ascertain whether it exerted any influence on the accommodation of the eye. With some difficulty I got a few Calabar beans, and, with the view of obtaining their active principles in a convenient form, prepared from them three extracts of varying strengths in the following manner:—The weakest of the three was made by thoroughly digesting gr. xxx. of the powdered Calabar bean in alcohol, carefully evaporating the strained fluid to dryness, and then adding to the residue ʒ i. of water. This formed a muddy solution of a light reddish brown tint. In strength, one minim of this solution corresponded to about half a grain of the bean. The second extract was formed by evaporating a portion of the first to about a quarter of its volume; so that one minim of this extract corresponded to about two grains of the bean. The third extract was the strongest, and was prepared like the first, except that the proportions differed; so that one minim of it in strength corresponded to four grains of the bean.

With these solutions, I then proceeded to perform the following experiments—in which I had the able assistance of Dr. Grainger Stewart—with the intention of elucidating the exact effects the Calabar bean is capable of producing on the eye:—

Experiment 1.—On the 17th of January, I carefully examined the condition of my eyes, and found that with both my sight was normal. I could see distant objects perfectly distinctly, and could read the finest print (No. 1 of Jaeger) at five inches distance, with either eye. Each pupil measured two lines in diameter, and acted readily under the influence of light. These points having been determined, I introduced a drop of the weakest extract of the Calabar bean into my left eye, at ten minutes past 12 o'clock. Its introduction occasioned no further irritation than a drop of simple water would produce.

No change was observed in the condition of the eyes until ten minutes thereafter, when, upon looking with the left eye, all objects beyond the distance of about a foot appeared dim and indistinct, but within that distance clear and well defined; while objects at all distances appeared nearer and larger than natural. Vision in the right eye remained unaltered. No difference was visible in the size of either of the pupils. A feeling of straining and heaviness was felt in the left eye similar to that experienced after a prolonged inspection of fine objects near the eye.

At 12.30, or twenty minutes after the introduction of the extract, a marked alteration in the size of the pupils was observable; the left pupil being only one line in diameter, while the right measured fully two lines. Looking with the left eye, all objects beyond nine inches from the eye appeared very dim, and at all distances everything seemed about a half larger than natural, and nearer to the eye. Vision in the right eye was unaffected.

At 12.40, the left pupil measured only two thirds of a line, while that of the right eye had dilated to two and a half lines. The furthest point of distinct vision with the left eye was eight inches from the eye. In other respects no alteration was observable since last report.

At 1.20, the pupils measured on the left side half a line, on the right two lines. With the left eye objects could with some effort be seen distinctly to the distance of about ten yards, but, as before, larger and darker than with the other eye. When reading with both eyes, a sensation of heaviness and fatigue was soon felt in the left. Vision in the right eye continued unaltered.

At 6 o'clock, the left pupil had dilated to one line, while the right had contracted to one and three quarter lines. Vision with the left was somewhat improved, and with an effort distant objects could be distinctly seen. Both pupils contracted under the influence of light, both singly and sympathetically. At 12 o'clock, the left pupil measured one and a half line, the right two and a half lines, and the same symptoms were present as at last report, only to a less marked degree. A dull aching and heaviness was experienced in the left eye, consequent upon its exercise in reading and writing.

On the following morning there was still an appreciable difference in the size of the pupils, and vision with the left eye was still slightly affected; but the symptoms gradually subsided, and in the afternoon completely disappeared.

The results obtained from this experiment were, that the Calabar bean acted first on the accommodation of the eye, causing indistinct vision of distant objects to such an extent that all objects beyond eight inches from the eye, appeared dim and indistinct. The next marked effect produced was contraction of the pupil, its diameter being reduced from two lines to half a line. As a natural consequence of less light passing to the retina of the eye experimented on, the pupil of the other eye became sympathetically somewhat dilated, while with the affected eye all objects appeared darker than natural. It is interesting to observe, that while the affection of the accommodation of the eye is the symptom first developed, it also is the first to subside, for we find that while the contraction of the pupil is at its maximum at 1.20, the affection of vision had already decidedly diminished. From the very small size of the pupil, it was very difficult to ascertain whether it acted under the influence of light or not. On the occasion of one of the reports (where it is mentioned), it was distinctly observed to do so.

Experiment 2.—Having ascertained that my eyes had returned to their normal condition, and that each pupil, as before, measured two lines, and acted under the influence of light, I again, on January 20th, introduced a drop of the weakest extract of the Calabar bean into my left eye at 8.30, A.M.

At 8.40 the pupils were unaffected. With the left eye objects beyond nine inches appeared dim, enlarged, and nearer than with the other eye, and a concave glass, of ten inches negative focus, was required to enable me to see distant objects distinctly. With this concave glass the nearest point at which I could see objects distinctly was nine inches from the eye.

At 9.5, the left pupil measured three fourths of a line, the right two lines. To see distant objects clearly with the left eye, a concave glass of eight inches negative focus was now required, and with this glass the "near-point" of distinct vision was five inches from the eye. Both pupils acted under the influence of light. Vision in the right eye was unaffected.

A drop of a solution of atropine (gr. ij. to ℥ i.) was now introduced into the left eye.

At 9.30, the left pupil had sensibly increased in size, and measured one line, while the right measured one line and three fourths. A concave glass of twelve inches negative focus was now sufficient for distinct vision of distant objects with the left eye.

At 10, the left pupil had become dilated to three lines, the right pupil remaining unaffected. With the left eye objects beyond three feet could alone be distinctly viewed, and all objects appeared smaller and more distant than natural. The left pupil was insensible to the influence of light. A drop of the extract of Calabar bean, of medium strength, was introduced into the left eye.

At 10.30, all objects beyond eight inches were clearly seen with the left eye, and the pupils measured three lines on the right side and one line and three fourths on the left.

A quarter of an hour later, the "near-point" of distinct vision had receded to twelve inches from the eye, but the pupils had undergone no alteration in size.

Another drop of the same extract of the Calabar bean, as was last employed, was again applied to the left eye.

At 11.30, vision with the left eye was perfectly distinct beyond nine inches from the eye. There was no alteration in the size of the pupils.

At 1.30, all objects within twelve inches appeared dim and indistinct with the left eye, while everything beyond that distance was clear and well defined. The left pupil was two lines and three fourths in diameter, the right one line and a half.

Another drop of the extract of the Calabar bean was introduced, which, as before, improved the condition of the accommodation of the eye, the effects lasting about four hours. The application of the Calabar bean was repeated three other times, the effects at each successive application being more marked, and enduring longer. In two or three days, the effects of the atropine and Calabar bean disappeared.

This experiment led me to the conclusion that the Calabar bean and belladonna are exactly antagonistic in their action on the eye; and I ascribed the temporary nature of the improvement effected by the Calabar bean on the eye under the influence of atropine, to the fact that the atropine solution was much stronger than the extract of the Calabar bean I had employed. To put this to the proof I performed the following experiment:—

Experiment 3.—On February 2d, at 2.10, P.M., I introduced into each of my eyes a drop of a solution of atropine of the strength of gr. ss. to ʒi. By examination, prior to the introduction of the drops, I had ascertained that vision in both was normal—all objects beyond five inches from the eye being distinctly perceived—and that the left pupil measured two lines, and the right fully one line and three fourths in diameter.

At 3.20, the physiological effects of the atropine had manifested themselves pretty decidedly. The right pupil was three lines and three fourths, the left three lines and a half in diameter; the nearest point of distinct vision was—left eye, eight inches; right eye, twelve inches.

A drop of the strongest extract of the Calabar bean was now introduced into my right eye.

At 3.40, the pupils measured three and a half lines each. In vision there was a marked difference between the eyes, for with the right I could read only very large type (No. 18 of Jaeger, "Canon" type) at two feet distance; while with the left, at that distance, I could read moderate-sized print (No. 8 of Jaeger, "Small Pica" type).

At 3.55, the state of vision in my right eye was very peculiar. I could only see objects distinctly between six and a half inches and nine inches from the eye; anything nearer to the eye than six and a half inches, or further from it than nine inches, appearing misty and dim. With the left eye everything appeared distinct beyond twelve inches. The right pupil measured three lines, the left three and a half lines in diameter.

At 4.15, the extent of clear vision with the right eye had very much increased—being in fact almost normal—all objects beyond six inches being seen with perfect distinctness. The nearest point of distinct vision in the left eye was fifteen inches. There was no alteration in the size of the pupils from last report. Looking with the right eye objects appeared much larger than when viewed with the left. With the right eye I was able to read small print without the slightest inconvenience, while with the left I was unable to read any but large-sized print, and that only when held at a considerable distance from the eye.

At 6.55, the effects of the Calabar bean were passing off, the nearest point of clear vision in the right eye being about eighteen inches from the eye. Another drop of the strongest extract of the Calabar bean applied to right eye.

At 7.5, distinct vision with the right eye ranged from six to nine inches from the eye; at 7.15, it ranged between five and a half inches and eight inches; at 7.55, between five inches and fifteen inches; and at 8.15, objects at all distances beyond five inches could be most clearly defined. Very littte alteration was observed in the size of the pupils or the vision of the left eye. No further application of the Calabar bean was made to the right eye, as the effects of the last application lasted until the effects of the atropine had almost passed off, and exhibited a marked contrast to the left eye, in which the atropine acted uncontrolled.

I have narrated these experiments somewhat in detail, so as to elucidate, as far as possible, the method of action of this new agent and its energy. These experiments prove that the local application of the Calabar bean to the eye induces—*first*, A condition of shortsightedness. That this is present, and the cause of the indistinctness of distant vision cannot be doubted, as it is relieved by the use of concave glasses. The fact that objects appear larger and nearer than natural may be attributed to the induced myopia. And, *second*, It occasions contraction of the pupil, and sympathetically dilatation of the pupil of the other eye. We further observe that atropine possesses the power of counteracting its effects, and, *vice versa*, that it is capable of overcoming the effects produced by atropine. The first symptom noticed is dimness of distant vision, and shortly after the pupil becomes contracted; the symptoms also subside in the same order, first the derangement of accommodation, and then the affection of the pupil.

Let me now say a few words as to the method of action of the Calabar bean. In respect to its effects on the pupil they might be produced either by causing contraction of the circular fibres of the iris, or by paralyzing its radiating fibres. I am inclined to believe that the contraction of the pupil is due to increased action of the sphincter pupillæ, and this chiefly on the ground that the other effects produced by the Calabar bean can only be explained by an induced contraction of the ciliary muscle—the muscle of accommodation; and as the sphincter pupillæ and ciliary muscle are both supplied by the ciliary nerves, I think the most feasible explanation of the action of the Calabar bean on the eye is to regard it as a stimulant to the ciliary nerves. In favor of this view we have the feeling of straining in the eye shortly after the physiological effects are produced. The alteration, too, in the accommodation of the eye exhibits much of the character of a spasmodic action; thus we find in experiment *third*, after the second application of the Calabar bean, that the extent of distinct vision is limited to three inches, viz., from six to nine inches from the eye, but an hour after distinct vision extends to any distance beyond five inches. It has also been observed that the accommodation of the eye is not usually affected in cases where contraction of the pupil is due to lesion of the sympathetic (exemplified in a case narrated by Dr. von Willebrand in the *Archiv. für Ophthalmologie*, vol. i., where contraction of the pupil depended on the pressure of enlarged glands on the cervical sympathetic, and where no affection of the accommodation was present).

As regards the cases in which this substance may be applied in practice, it is applicable in all instances where atropine is used to render the examination of the eye more perfect or more simple. This includes two classes of cases; those in which dilatation of the pupil is either necessary or desirable to aid ophthalmoscopic examination, and those in which paralysis of the ciliary muscle is necessary, in order to ascertain the state of the accommodation of the eye.

In cases of retinitis, with photophobia, I think it might be advantageously employed to diminish by contraction of the pupil the access of light to the retina, and this more especially in those cases of this disease where the pupil has been dilated for the purpose of ophthalmic examination.

The cases, however, in which I should expect this remedy to produce the most beneficial effects are those in which paralysis of the ciliary muscle occurs as a consequence of long-continued debilitating disease. Cases of this kind are occasionally reported as following attacks of typhus or other fevers. The dimness of vision that forms a frequent sequela of diphtheria appears also to be due to this cause, judging from the symptoms detailed by Dr. Begbie in an admirable paper on diphtheria, recently published in this Journal; therefore, in these cases, good effects may be expected from the use of the Calabar bean.

In cases of ulceration at the margin of the cornea, leading to perforation, or even when prolapsus of the iris has just occurred, as well as in cases where the iris has a tendency to protrude through a corneal wound, the contraction of the pupil induced by this agent might prove serviceable by drawing the iris away from the circumference.

I have shortly pointed out the cases in which I consider this remedy may prove useful, but have as yet had but little opportunity to test it practically; I think, however, there can be little doubt that in the Calabar bean we possess an agent that will soon rank as one of the most valuable in the ophthalmic pharmacopœia.—*Edinburgh Medical Journal.*

EXPERIMENTS ON DIGESTION AND RESPIRATION.

By Edmund Wm. Davy, A.B., M.B., M.R.I.A., &c., Prof. of Agriculture and Agricultural Chemistry to the Royal Dublin Society.

Before leaving Munich, I visited also the Physiological Institute, which is an institution devoted to the advancement of physiological science in its different departments, and is, I believe, one of the largest and most complete schools of the kind in Europe; and has some very distinguished men attached to it, amongst whom are Profs. Bischoff, Pettenkofer, and Fehling, whose labors have done much already to advance physiological science. It is a well-constructed building, having a fine anatomical theatre, and a series of experimental rooms and apartments belonging to each of its professors. Amongst other objects of interest that I saw there, was a new apparatus which had been recently devised by Prof. Pettenkofer, in order to determine more accurately the changes which food underwent during the process of digestion in man and other animals, by collecting carefully the entire products of respiration, and the excretions eliminated in a given time, the individual or animal being fed on a certain quantity of food, the composition of which had been accurately determined beforehand. The apparatus consisted of a large chamber, which was made by riveting together sheets of iron, air-tight, as is done in the construction of boilers. This chamber was large enough to contain comfortably one individual, together with a bed; and, by an ingenious contrivance, an arrangement was made by which food could be supplied, from time to time, without the admission of air, except a small quantity whose amount was known. The subject under experiment being placed in this apartment, its door was closed air-tight, and a current of atmospheric air was drawn through it at a certain rate by means of a steam-engine, and afterwards made to traverse a series of tubes filled with strong sulphuric acid, chloride of calcium and caustic potash; all of which, previous to the commencement of the experiment, had their weights accurately ascertained. A comparative experiment was at the same time made with the air of the outer apartment, in which this apparatus was placed. At the close of the experiments, which were carried on for several hours, and in some cases days, all the tubes were carefully re-weighed, and the excess of increased weight in the sulphuric acid, chloride of calcium, and potash tubes, in the case of the air drawn through the apparatus, over that produced by the air of the outer apartment, indicated (as is well known in chemical analysis) the amount of water and of carbonic acid which had been exhaled from the lungs and skin of the subject during the period the experiments were carried on. The excretions, likewise, which were passed during the same period, being all carefully collected, and retained by a suitable arrangement, their composition was afterwards ascertained by a chemical determination of their constituents.

In this way, Profs. Bischoff and Fehling have very accurately determined what portions of our food ultimately pass off by the lungs and skin, and what are eliminated in the excretions, which are points of much interest and practical importance. I have as yet been unable to see any published account of the results of Profs. Bischoff and Fehling's experiments with this apparatus; but, if I rightly understood Dr. Ranke, the German gentleman who kindly took me to see the Physiological Institute, and showed me this apparatus, their experiments led them to the following conclusions, which confirm in different particulars the results of Prof. Haughton, of the Dublin University, and other gentlemen who have previously investigated this subject.

1st. That the nitrogenous portions of the food went to repair the continuous waste of the nitrogenous tissues of the body which takes place during the performance of its various functions; and that urea was the form under which the metamorphosed or worn-out nitrogenous tissues were chiefly eliminated from the system.

2d. That when an excess of nitrogenous matter was supplied in the food, more than was sufficient to repair the waste of tissue, that excess had the effect of producing a more rapid formation and subsequent breaking up of tissue, and consequently increasing the amount of urea eliminated in a given time; but that the increased quantity of urea occurring in the urinary secretion was not due to the excess of nitrogenous matter being converted directly into that substance, as some have supposed, but that its constituents first formed a portion of the tissues which, by their subsequent metamorphosis, furnished urea.

3d. Their experiments also showed that little or no nitrogen passed off with the fæces, or with the product of respiration, but that almost the whole evolved was contained in the urinary secretion.—*Journal of the Royal Dublin Society.*

ANNUAL REPORT OF THE PATHOLOGICAL-ANATOMICAL DEPARTMENT OF THE VIENNA GENERAL HOSPITAL, UNDER THE DIRECTION OF PROFESSOR ROKITANSKY.

By Dr. F. Schott.

In the year 1861, there were 1,464 *post-mortem* examinations made, the results of which in general are presented in the following table:

Meningitis	23	Catarrhus intestinal.	1
Atrophia cerebri	52	Cholera	1
Hæmorrhag. cerebri	40	Stricture of the intestines	3
[illegible]	9	Typhus	178
Abscessus cerebri	5	Dysenteric	57
Œdema "	12	Periproctitis	1
Newgrowths in the brain	5	Morb. Brightii	30
Parotitis	1	Atrophy of the kidneys	9
Myelitis	12	Nephritis	14
Œdema glottidis	6	Processus puerperal	105
Stenos. laryng.	1	Periostitis	3
Laryngitis crouposa	4	Caries et necros. ossium	21
Bronchitis	4	Osteomalacia	1
Bronchiectasie	6	Rhachitis	3
Pleuritis	20	Abscess. musc. psoas	3
Emphysema pulmonum	9	Gangræna vulneris	8
Pneumonia	120	Marasmus	8
Gangræna pulmonum	11	Anæmia	19
Pericarditis	13	Leukæmia	4
Hypertrophy of the heart	25	Pyæmia	30
Endocarditis	79	Scorbutus	9
Myocarditis	1	Delirium tremens	10
Aneurysma	1	Hydrops post febr. intermitt.	4
Peritonitis	67	Uræmia	2
Hepar granulat.	15	Variola	7
Atroph. hepat. acuta	4	Pustula maligna	2
Abscessus hepatis	7	Pemphigus	1
[illegible]	1	Syphilis	11
[illegible]	2	Tuberculosis	255
Internal incarceration	5	Carcinoma	101
	560		904

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THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, APRIL 2, 1863.

Relative Numbers of the Sexes at Birth.—An article on the relative numbers of the sexes at birth, by Dr. Whitehead, published in the *Medical Times and Gazette* of Nov. 8th, 1862, contains some very interesting and curious statements. The well-known fact of the preponderance of male over female infants is borne out by his carefully-collected statistics, taken from the government registers of a large part of Europe. In Central and Northern Europe, it appears that the relative proportion of the sexes at birth stands at about 106 males to 100 females. This is true in eleven of the principal European States, viz.: Russia, Saxony, Austria, Wurtemberg, Bavaria, France, Hanover, Norway, England, Prussia, Belgium—ranging from the maximum in Russia, 109.55, down to the minimum in England, 104.77.

Some very curious inquiries and reflections growing out of these statistics are considered by the author. It is found that the great preponderance of male births does not lead to a steadily increasing preponderance of male over female adults, for the rate of male mortality preponderates sufficiently to keep down the ratio; in England, emigration also helps to bring down the proportion of males to females in the whole population to a point considerably lower than on the Continent.

The author shows that the common impression, that among illegitimate children there is a large predominance of males, is erroneous. It is remarkable how near the ratio comes to that in the case of legitimate children. Thus in England, during fifteen years ending with 1859, the average ratio of male illegitimate children at birth was 104.26, and of legitimate children 104.70 to 100 female—an advantage of .44 per cent in favor of the legitimate. It is thought that the incomplete registration of illegitimate births in England may detract from the reliability of these statistics; but the general statement is borne out by the fuller registration of the Continent. Here we find that in eight of the principal countries of Central Europe the same rule holds. The proportion of males to females born *in* wedlock is one and a half per cent. greater than among children born *out* of wedlock. These statistics settle the question beyond a doubt, and in a way directly contrary to popular opinion, here as well as in Europe.

We confess we are somewhat surprised to find that in England the number of illegitimate children born is in about the same proportion to the legitimate as it is in the territory of its supposed much less moral neighbor over the channel. In England the per centage of illegitimate children born is 6.50, and in France 7.61; a difference which would probably be greatly diminished if it did not disappear altogether, were the registration of illegitimate births as accurate in the former as in the latter country.

Dr. Whitehead discusses the question of the cause of the preponderance of one sex over the other at birth, without coming to any very decided opinion about it. He groups together certain classes of population, and compares the statistical records to see if they will furnish any clue to the mystery: thus we have the following summary, and his conclusions :—

"The following summary represents, in brief, the facts as above stated, with the addition of the average male birth-rate of the illegitimate :—

	To 100 Females	
	Legitimate. Males.	Illegitimate. Males.
[illegible] manufacturing towns - - - -	105.07	102.72
[illegible] cathedral and county towns - - - -	103.15	105.50
[illegible] agricultural towns - - - -	105.00	105.91
London - - - - - - -	103.96	102.92
England - - - - - -	104.70	103.40

"From these figures it would appear that the male birth-rate in this country stands the highest among those whose circumstances expose them to influences commonly considered to be more than all others prejudicial to life and health—inconvenient agglomeration, insufficient breathing-space, both at work and at home, an impure, ozoneless atmosphere, mephitic vapors, poverty, dissipation, squalor, and some others. It is clear, therefore, that these agencies cannot be fairly reckoned among the causes of a low male birth-rate.

"The cause may possibly be sought for in the hereditarily-continued habits of luxury and inaction, together with an excess of brain-labor as compared with that of the muscular system, inferable from the character of the communities furnishing the second and fourth items."

With regard to another common opinion, our author says :—

"Allusion to one popular notion, however, may be ventured here, if only to afford an opportunity of expressing a doubt of its validity, namely: that old men, sickly and feeble men, those of the lymphatic temperament, and they who have long suffered under specific ailments, are less likely to propagate males than females. This impression I believe to be unfounded in fact, as could be illustrated, if needful, by a multitude of examples. One such instance shall suffice. A gentleman (a well-known public character) of remarkable athletic power, married in early life a woman of his own age, and by her had three daughters, but no son; after which his wife died. At the age of 69, he was again married to a lady just half a century younger than himself, and by her had five children, the first four of whom were sons, and the fifth a daughter.

"The determination of sexuality is probably a process which belongs entirely to the female, and in which the agency of the male has no participation. And it is not improbable, or, at least, it would be difficult to disprove, that as many sons, comparatively, are born to old men as to young, to the weak as to the athletic, to the morbidly-enfeebled as to the healthy. Nor does occupation, climate, poverty, wealth, or any other tangible circumstance, seem, in the male, to exercise a determining influence. The opinion is further strengthened by the marked tendency to the reproduction of one sex, whether male or female, in preference to the other, being hereditarily continued in the female, but not in the male.*"

The whole paper is very interesting, and shows the most patient industry in collating and comparing such a vast body of statistics.

PRESENT TO THE JANITOR OF THE MASS. MED. COLLEGE.—The janitor of the Massachusetts Medical College, though not commonly considered as being immediately connected with the labors of instruction in Harvard University, is charged with important and responsible duties, bearing upon the welfare of the instructors and students. Mr. William B. Andrews, the present incumbent of the office of janitor, has proved singularly acceptable to both teachers and pupils, not only for his attention to its requirements, but for the agreeable way in which he fulfils them. The following correspondence between the members of the graduating class and Mr. Andrews reflects honor upon both parties, the faithful official and the grateful recipients of his attentions. The letter of the class contained a donation of forty dollars.

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* This result would have been readily ascertained from the records of the peerage and landed gentry, had the editors arranged the births in the order of their occurrence, instead of recording the males and females separately, and having omitted the birth-dates of many of the latter.

Mr. Wm. B. Andrews, COLLEGE LIBRARY, March 11, 1863.

DEAR SIR,—The agreeable duty devolves upon the undersigned committee to present to you, on behalf of the graduating class of 1863, the enclosed offering as a testimonial of their regards and respect for your uniform kindness and attention to them while pursuing their studies. The position which you occupy, the onerous duties imposed upon you, the almost perfect equanimity of temper demanded of you, have been exhibited in a most marked line of conduct during the term. Harmony and good feeling have existed to an eminent degree; and it is not too much to say that your judgment, kindness and tact, have contributed greatly to produce and nourish this desirable result. The class also beg leave to present their compliments to your family.

The gentlemen, in departing, wish you every success, and shall ever hold the College and its pleasant associations with happy remembrances.

J. B. GARVIE, DAN MCPHEE, D. HYSLOP HAYDEN, WM. J. RADFORD.
J. G. PERRY, *Committee on behalf of the Graduating Class of* 1863.

To the Committee of the Graduating Class.

GENTLEMEN,—I thank you very heartily for the liberal token of your good will, which you offer me on behalf of the graduating class, and still more for the kind feelings and words of friendly esteem by which it is accompanied. It is a great pleasure to be told that the manner in which I have performed my duties has been acceptable to the gentlemen for whom I have labored. I must express my gratitude in return for the kindness and courtesy with which you have uniformly treated me, and which have rendered offices that might have been heavy burdens comparatively easy and cheerful tasks.

Gentlemen, I shall always remember your generous and friendly treatment of me, and shall find in it new reasons and encouragement for doing all that I can, as well as I know how, to be of assistance in my line of duty to those who follow you in the study of the noble calling upon which you have just entered.

Believe me, gratefully yours, WILLIAM B. ANDREWS.

Boston, March 13, 1863.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MARCH 28th, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - - -	42	37	79
Ave. mortality of corresponding weeks for ten years, 1853—1863,	41.0	33.2	74.2
Average corrected to increased population - - - -	00	00	81.78
Death of persons above 90 - - - - - - -	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
12	6	4	8	0	1	0	1

COMMUNICATIONS RECEIVED.—Propylamin in Tic Douloureux.—Cases in illustration of the so-called "Congestive Fever," or cerebro-spinal affection which has recently appeared in the camps in and around the town of Newbern, N. C.

MARRIED,—In this city, March 26th, C. D. Varley, M.D., of New York city, to Mrs. Eliza M. Pike, of Brookline.

DEATHS IN BOSTON for the week ending Saturday noon, March 28th, 79. Males, 42—Females, 37.—Accident, 1—anæmia, 2—disease of the bladder, 1—disease of the brain, 3—inflammation of the brain, 2—bronchitis, 3—cancer, 1—consumption, 12—convulsions, 1—croup, 6—debility, 3—diarrhœa, 1—diphtheria, 1—dropsy of the brain, 2—dysentery, 1—fever, 1—scarlet fever, 4—hæmorrhage (puerperal), 1—disease of the liver, 1—disease of the kidneys, 1—disease of the heart, 1—congestion of the lungs, 4—disease of the lungs, 2—inflammation of the lungs, 8—marasmus, 2—old age, 1—paralysis, 1—pleurisy, 1—puerperal disease, 1—disease of the spine, 1—tumor, 1—unknown, 7—whooping cough, 1.

Under 5 years of age, 32—between 5 and 20 years, 11—between 20 and 40 years, 16—between 40 and 60 years, 12—above 60 years, 8. Born in the United States, 63—Ireland, 14—other places, 2.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

Vol. LXVIII. Thursday, April 9, 1863. No. 10.

HOSPITAL NOTES AND MEMORANDA.

By J. Baxter Upham, M.D., Surgeon in charge of Stanly Gen. Hospital, Eighteenth Army Corps.

[Communicated for the Boston Medical and Surgical Journal.]

Cases illustrative of the so-called "Congestive Fever," or Cerebro-spinal Affection which has recently appeared in the Camps in and around the town of Newbern, N. C.

I propose, in the present paper, to give, in outline, a few brief notes of the cases of this affection as it has presented itself in hospital during the last two or three months. The disease (so far as I can learn) has, in every case, originated in the camps adjacent to the town, whence it has been brought into the hospital at an earlier or later stage of its progress. The records here submitted are from the note-books of my associates on the medical and surgical staff of the Hospital, and the autopsies were made—under my own inspection mostly—by the attending surgeons in whose wards they occurred.

The four cases first adduced were in the service and under the care of Assistant Surgeon J. Q. A. Meredith, of the 103d Regiment Penn. Vols.

Case I.—J. M., a private, aged 19, was admitted to Hospital on the evening of January 16th, in a moribund condition. No previous history of his case could be obtained, further than that he had been attacked the night before, suddenly and violently. When admitted, he was unconscious, having frequent epileptic spasms; frothing at the mouth; pupils insensible to light. Tonics and stimulants, in large doses, were prescribed, and stimulating injections were administered; these last were not retained, but brought away immediately large quantities of hardened fæces. Sinapisms were applied over various parts of the body and limbs.

17th.—No improvement; skin moist and moderately warm; pulse 160, irregular, soft and very compressible; spasms growing worse; stimulants assiduously employed. Died, without a sigh, at 4, P.M.

Autopsy, twenty hours after death. *Head.*—Investing membranes of the brain were found much congested—the substance of the brain itself slightly so, with a deposit of pus-colored fluid within the ventricles and at the base of the brain, and upon the lobes of the cerebellum. *Chest.*—Lungs greatly congested; more posteriorly than anteriorly. Heart normal in size, with a deposit of lymph in both ventricles. Stomach healthy. Liver normal. Spleen of natural size and highly congested. Kidneys and Peyer's glands healthy.

Case II.—J. C., a private, aged 17, was admitted to Hospital Jan. 10th. No statement of his previous condition received. When admitted, he was in a high state of delirium, with a hot and arid skin; tongue dry and almost impossible to protrude; abdomen tympanitic; pulse frequent and feeble; surface of a livid color. He had involuntary discharges from the bowels, of a blackish hue. His respiration was hurried and difficult; extremities cold. Prescribed pil. hydrarg., gr. i. every hour; quinia, gr. ij. every two hours. Hot applications to back, abdomen and extremities. Whiskey and beef-tea.

Jan. 12th.—No abatement in virulence of symptoms. Continued pil. hydrarg., with an equal amount of pulv. ipecac. every hour. Quinia, grs. iij., every two hours. Continued whiskey, beef-tea and hot applications.

13th.—Growing worse; constant muttering and occasional exclamations. Continued treatment, adding neutral mixture and acid drinks, with sinapisms to chest.

14th.—No improvement. Applied blister to chest and back of neck. Quinia, gr. v., every two hours. Morphia at bed-time, to check diarrhœa.

15th.—Moribund. Died at 4, P.M.

Autopsy, twenty hours after death. Body small, spare, somewhat below the medium size; external appearance of a dark livid hue. *Head.*—Upon removing the calvarium, the investing membranes of the brain were found to be somewhat congested. On cutting into the substance of the brain, some points of blood exuded, more prominent than natural. The arachnoid presented a slightly clouded appearance. In other respects normal. *Chest.*—Heart normal; lungs greatly engorged, more so in posterior and dependent portion, where were found circumscribed spots of discoloration, varying in size from that of a split pea to a five-cent piece, resembling somewhat the condition of pulmonary apoplexy. The same appearance, though less marked, anteriorly. *Abdomen.*—Spleen nearly double its natural size, greatly engorged with blood. Liver slightly enlarged and somewhat congested. Kidneys normal. Stomach healthy. Peyer's patches in a few instances more prominent than natural, friable, apparently, with, in one case, ulcerative points; not having, however, the legitimate appearance recognized in typhoid fever. Other organs healthy.

Case III.—C. B., private, aged 18, was admitted into Hospital Jan.

16th. in a moribund condition. He had been on duty the day previous, and was attacked in the afternoon with chills, headache and delirium. Caps were applied to the back of the neck, and cathartics and quinine were administered freely. Upon entering the hospital, his breathing was irregular, difficult and accompanied with groaning; 44 inspirations in a minute. His pulse was imperceptible. There was a mottled appearance of the skin, approaching petechia. Percussion of chest clear anteriorly; the extremely low condition of the patient precluded percussion posteriorly. Directed enema of spts. vini gallici. ℥ iv.; ol. terebinth., ℥ i. M. Whiskey and quinine to be given freely. Sinapisms applied to back of neck, spine, abdomen and extremities.

The patient died at 4 o'clock, P.M.

Autopsy, twenty hours after death. Body of medium size and well developed. *Head.*—Brain but slightly congested in its substance, having at its base a deposit or exudation of tenacious consistence, presenting much the appearance of false membrane, conjoined with a pus-colored fluid, most noticeable and abundant around the origin of the nerves of sense and on the base of the cerebellum. The same substance also occurred in the ventricles. No alteration in the texture of the brain itself. *Chest.*—Lungs extensively congested, more posteriorly than anteriorly; the upper portion interspersed with tuberculous deposits; the lungs were generally crepitant, with well-defined spots, resembling those of pulmonary apoplexy. Heart normal in size, with extensive deposits of lymph in both ventricles. Old adhesions of both lungs to pleura, and of left to diaphragm. *Adomen.*—Liver enlarged and congested. Stomach healthy. Spleen enlarged to double its natural size, and greatly congested. Kidneys normal. Intestines healthy. No alteration of Peyer's patches.

Case IV.—S. P., a private, aged 32, was brought to Hospital Jan. 16th, in a moribund state. No history of his previous condition given, though we learned from his comrades that he was attacked suddenly the day before. Quinine and whiskey, with capsicum, administered in free doses. Brandy and spirits of turpentine given in enema.

Jan. 17th.—Patient this morning was lying on his right side, his head thrown back, groaning heavily, giving indications of great pain. He was roused with difficulty. His skin was moist and moderately warm; sordes on teeth; tongue dry and inclined to black; pulse 120, weak and compressible, inclined to intermit; petechial eruption on limbs; percussion good in front, flat posteriorly. Treatment of previous day continued. Sinapisms also applied to back of neck and chest, abdomen and calves of legs.

Evening.—Growing worse; powers rapidly failing; totally unconscious and insensible. Same treatment continued with more vigor, accompanied with frictions along the spine

Jan. 18th.—Died at 7, A.M.

Autopsy, six hours after death (conducted by Dr. Fisher, Assistant Surgeon of the 44th Mass.). Cadaver of good size, well developed; no emaciation. Rigor mortis very strongly marked. A few petechial spots are to be seen upon the arms and hands. *Head.*—On removal of the calvarium signs of congestion were apparent, the veins of the investing membranes being considerably engorged, beneath which a purulent lymph-like substance was observed, thinly spread over the surface of the brain—upon the base and between the lobes of the cerebellum particularly—and, in greater abundance, about the origin of the nerves, and upon the surface of the medulla oblongata. The same substance was also seen in the lateral ventricles, being here more opaque and thickened than elsewhere. The substance of the brain itself was apparently normal. *Chest.*—Lungs moderately congested, more posteriorly than anteriorly, crepitant throughout; old adhesions upon the left lung. Upon opening the pericardium, an abundance of diffluent lymph, easily washed away with water, was observed; its inner surface uniformly congested. The ventricles of the heart were filled with dark fluid blood, which subsequently clotted in the basin. There were no fibrinous deposits; size and texture of heart normal. *Abdomen.*—Stomach not examined. Liver normal in size and appearance. Spleen enlarged and slightly softened; of a deep maroon color. Kidneys normal. Small intestines, in the space of two feet from cœcum, showed Peyer's glands, in one or two instances, more prominent than natural; in one case, some loss of substance, not amounting to ulceration; one or two patches a little raised or thickened perhaps. No redness or congestion of the mucous membrane.

The cases which follow occurred in the wards under the charge of Dr. J. B. Treadwell, Asst. Surgeon of the 45th Mass. Vols.

Case V.—J. M., a private, aged 21, was received into Hospital on the 14th of January, in an algid condition, exhausted and delirious. The statement of his regimental surgeon, Dr. Robert Ware, is to the effect that he was seized, on the 12th, with a chill, followed by high febrile excitement, with a full pulse, and, at first, a hot skin; soon after became delirious. He had been treated with full doses of quinine, the free administration of stimulants, and cupping at the back of the neck. A similar line of treatment was continued on his admission to the Hospital.

Jan. 15th.—Passed an unquiet night, with but little sleep. There was constant muttering delirium and jactitation; pulse 80, very weak; skin cool and moist; respiration quiet; bowels open; marked subsultus tendinum.

Evening.—Symptoms much the same, but aggravated.

Died at 12 o'clock, midnight.

Autopsy, twelve hours after death. Body well developed; no emaciation; rigidity about as usual. *Head.*—Both ventricles of the brain were greatly distended with a semi-opaque fluid, having a pus-like deposit at the bottom. This same deposit was also manifest at the base of the cerebellum, and entangled about the origin of the nerves of sense, where it was abundant, lymph-like, somewhat tenacious, much resembling false membrane in appearance, and could be traced onward, by carefully unfolding the convolutions, into both lateral ventricles. *Chest.*—About three ounces of fluid were found in the pericardial cavity. Heart below the normal size; mitral valves a little thickened; very firm adhesion of the pleural surface throughout the whole of the left side. Right lung, with the exception of a small portion of anterior lobe, congested. Left lung one third smaller than natural—the result of disease. *Abdomen.*—Liver of natural size; external appearance good; interlobular veins somewhat congested. Spleen normal. Kidneys healthy. Stomach slightly congested, with cadaveric softening along its greater curvature. Peyer's patches appeared slightly engorged and enlarged, and were more prominent than natural.

Case VI.—G. B., a private, aged 21, was received into Hospital in evening of the 19th of January. The statement of his regimental surgeon, Dr. Robert Ware, was as follows:—"Patient was attacked suddenly with symptoms of a severe cold, and some disposition to paralysis of the tongue and muscles of the face. He was treated with quinine in half-drachm doses, stimulants and beef-tea, and was cupped to the extent of five ounces at the back of the neck. Reaction came on, though incompletely.

"Jan. 19th.—Same treatment continued, but he has become gradually worse, and, since noon, delirious."

Evening.—Patient, on admission into Hospital, appeared in a state of complete exhaustion, almost amounting to collapse, death following immediately.

Autopsy, twelve hours after death. Body of medium size, but little emaciated. Rigor mortis great. Arms, chest and legs studded with petechial spots, of one, two and three lines in diameter. *Head.*—The membranes of the brain but little, if any, congested. Slight cloudiness on the superior surface visible through the membranes; a little opacity of the arachnoid noticed; otherwise nothing abnormal. *Chest.*—Lungs more than usually engorged, especially at dependent and posterior portions; crepitant throughout. The pericardium contained six or eight ounces of sero-purulent fluid, holding in suspension masses of flocculent lymph; both surfaces covered with a layer of lymph, of sufficient thickness and consistency to be torn off like a membrane, having the appearance, in fact, of genuine false membrane; some fibrinous clots in the ventricles, and thickening of the mitral valves. *Abdomen.*—The liver, spleen and kidneys were normal; mucous membrane of stomach and intestines also natural. Peyer's patches healthy.

Case VII.—O. W. W., a private, aged 22, was suddenly attacked, according to the statement of his regimental Surgeon (Dr. Newton), on the 13th of January, with violent headache, accompanied with hot skin and full pulse.

14th.—All symptoms aggravated, with retention of urine.

Jan. 15th.—Admitted to Hospital in a state of high febrile excitement; pulse 70, full and moderately strong; hot skin; dusky hue of face; easy respiration; much delirium, patient frequently attempting to get out of bed. Prescribed wine, ℥ i. every two hours; quinine, gr. vi. every three hours; also, hyd. chlor. mit., gr. xv., to be taken at once, to be followed in three hours with carb. ammon., gr. v. Delirium still increased; skin became cool and moist, with less febrile excitement. [The further notes of this case have been mislaid.] All symptoms, however, became rapidly aggravated; delirium gave way to symptoms bordering on coma; the respiration became hurried; involuntary discharges increased, and the patient died, with but slight signs of exhaustion, on the 22d of January.

Autopsy, four hours after death. Subject of medium size. No petechiæ (a few spots had appeared, during his illness, upon the left forearm). No rigor mortis. *Head.*—Dura mater healthy; upper surface of brain slightly engorged; on the base of the brain, around the origin of the nerves of sense, and upon the medulla oblongata especially (sheathing this latter completely), was observed a deposit of consistent, pus-like lymph of about two lines in thickness, extending also into the crevices of the brain and cerebellum. On opening the ventricles, a gush of dirty, semi-opaque fluid exuded, and, at the bottom and posterior parts, flakes of lymph were seen. The right lateral ventricle contained, in its posterior part, about a drachm of this lymph-like matter. *Chest.*—Heart normal. The left lung of slate color, and has on its posterior aspect a hepatized look and feel. Bronchiæ filled with tenacious lymph-like substance, of a consistency sufficient, in some parts, to be drawn out by the forceps. The lung, indeed, was in a state of red hepatization. *Abdomen.*—Stomach healthy. Liver of normal size, a little congested. Gall-bladder distended with dark fluid bile. Kidneys natural. Spleen very small, not congested, of lighter color than natural. Peyer's patches natural.

Case VIII.—D. N. H., a private, 18 years of age, was admitted to Hospital on the 13th of January. His previous circumstances and condition, according to the statement presented by his regimental surgeon, Dr. Kneeland, were as follows:—"Patient was of nervous temperament and of rather slight figure—had always enjoyed good health up to the present time. In the forenoon of January 28th, had a slight chill, which was succeeded by violent headache and pain in back and limbs; he had slight epistaxis; urine was scanty and high colored. ℞. Ol. ricini, ℥ i. ℞. Spts. eth. nit., ʒ i., every two hours.

"29th.—No better; all symptoms increased in severity; complains of ringing in ears; pulse full and frequent; tongue furred; some cough. Treatment continued."

30th.—Had, on admission to Hospital, the following symptoms:—Skin hot and dry; severe headache, particularly in occipital region; head thrown back; tongue dry, and dark colored in centre, with white edges; abdomen natural; extremely violent delirium. ℞. Liq. ammon. acet., spts. eth. nit., aqua camph., aa ℥ i.; chloroform, ʒ ss. M. S. ʒ ii. every two hours. Sinapisms to feet. Beef-tea and farinaceous diet.

31st.—Rather more quiet. Symptoms, with the exception of delirium, quite as marked as yesterday. Rather profuse epistaxis. ℞. Ol. terebinth., ʒ iv.; syr. simp., ℥ i. M. S. ʒ i. every three hours.

Feb. 1st.—No better; slight diarrhœa; pulse 124, less full. ℞. Quiniæ sulph., ʒ ss.; acid. sulph. arom., gtt. xv.; aqua font., ʒ x. M. S. ʒ i. ter in die.

2d.—Delirium less active; expresses himself better; diarrhœa increased. ℞. Plumbi acet., gr. xviii.; opii pulv., gr. v. M. Div. in pil. No. vi. S. One after second discharge.

3d.—About the same as yesterday; cough rather troublesome; sibilant râles heard over both breasts; sordes on teeth. ℞. Pulv. ipecac. et opii, ʒ ss. Div. in ch. No. 6. One every four hours. Continue treatment.

4th.—Febrile symptoms very much diminished; pulse 100, weak; skin cool and moist; answers quite readily. Omit prescription of January 30th. ℞. Vin. alb., ℥ i., every four hours. Continue treatment.

5th.—Much the same as yesterday; gurgling in the right iliac fossa. Continue treatment.

6th.—Seemed rather stupid; muttering delirium; no diarrhœa. Omit prescriptions of Feb. 2d and 3d.

7th.—About the same; rather weaker; several spots on abdomen. Increase wine to ℥ iss. every three hours.

8th.—Comatose; does not answer questions. Continue wine, turpentine and quinine.

9th.—No better; pulse 90, rather weak; tongue discolored, dry and thickly furred. Continue treatment.

10th.—Died at 4 o'clock, P.M., apparently but little exhausted.

11th.—*Autopsy*, fourteen hours after death. *Head.*—Slight injection of vessels of cerebral membrane. Lateral ventricles of brain distended with fluid mixed with a purulent-looking substance. On the inferior aspect of the cerebellum and medulla oblongata was a copious deposit of lymph, from one fourth to three eighths of an inch in thickness, having a lobulated appearance and being quite firm. There was also a slight deposit of lymph in some of the fissures. *Thorax.*—Heart normal. Lungs healthy, with exception of slight congestion of posterior lobes. *Abdomen.*—Liver, stomach, spleen, pancreas, kidneys and bladder natural in size and healthy. Peyer's glands very much thickened, and, in one or two instances, ulcerated. The solitary glands somewhat enlarged.

Further illustrations will be given in a future paper.

PROPYLAMIN IN TIC DOULOUREUX.

[Communicated for the Boston Medical and Surgical Journal.]

Mrs. S., aged 56 years, was attacked, in December last, with the form of neuralgia commonly known as "*tic douloureux.*" She had, before this, been a hard-laboring, but not a strong woman. The pain was very severe, amounting to paroxysms of the hardest kind, and did not yield to the common remedies. The usual chalybeates, vegetable tonics, anodynes and narcotics were administered, and subcutaneous injection was also resorted to. The stomach at last became irritable, and rejected both medicines and nourishment.

Narcotics and anodynes were then applied locally, and chloroform was administered largely, especially during the paroxysms. Blisters were next resorted to, and solutions of atropine and morphine were freely used on the blistered surface.

The pain gradually diminished, and the paroxysms became less frequent. Soon the patient began to recover her appetite, and the strength began to increase, so that on the first of the present month she was about the house, but not able to perform much labor.

About the 13th inst. she had another attack nearly like the first, but the pain was felt over a larger surface. It now extended along the side of the *nose*, back of the neck, through the shoulders and the length of the *left* arm. Much of the time, and especially during the paroxysms, she shrieked with pain. The remedies before used were resorted to, but without much effect.

Having heard of the *propylamin*, as prepared by J. R. Nichols & Co., being useful in cases of rheumatism and some nervous diseases, its use was suggested in this case, on the 15th inst., the patient at that time being no better. Twenty-five drops of propylamin were prepared with six ounces of water, and one tablespoonful was given to the patient once every two hours. After taking eight doses of the medicine, the pain had entirely left her. The blister had, during the same time, been occasionally dressed with the solution of morphia. The use of the propylamin was continued until March 18th, when she vomited a large quantity of a greenish-yellow fluid, and complained of great faintness and a sinking sensation at the pit of the stomach, accompanied by an intolerable *thirst*. The pain has not since returned, but a severe soreness remains wherever the pain has been; the use of the propylamin was discontinued.

March 20th.—The patient has no pain, but complains of a prickling, itching sensation in the shoulder-joints, along the spine, in the knees, ankles and heels. The pain has not returned since before the vomiting began.

Not having had much experience in the use of propylamin, and never having known of its use in a case like this before, I should be glad to learn from those members of the profession who are better acquainted with its use, their experience, and also their opinion of its therapeutic action.

What would be the symptoms of an overdose?

Were the vomiting, faintness and intolerable thirst, produced by it?

Were the prickling and itching sensations, two days after, produced by the same cause?

I have great confidence that the propylamin was the chief cause of relieving the pain in the present instance; but the question arises whether these peculiar symptoms were produced by the medicine or not, as I know of no other cause for them.

What would be the antidote for an overdose of propylamin?

Barnet, Vt., March 21st, 1863. BENJ. F. EATON, M.D.

ON POISONING WITH STRYCHNIA.

M. GALLARD has recently undertaken a series of investigations on strychnia and its antidotes, the results of which are the following:—Previous to Palmer's trial, and the researches of M. Tardieu on the above subject, very little was known concerning it, and even in recent treatises on Medical Jurisprudence it is dismissed with few words. M. Gallard has collected all the cases hitherto observed, and has come to the conclusion, that a dose of strychnia varying from one to five centigrammes (about one-sixth to four-fifths of a grain) is sufficient to destroy life. One or two centigrammes are enough to give rise to severe symptoms, and, if it is swallowed, two-fifths of a grain are necessary to produce death: if the stomach is full of food at the time of taking the poison, a larger dose than this may not cause any serious consequences; and if it is administered at sufficiently long intervals, much larger doses may be taken with impunity. The commencement and course of the symptoms are very rapid; either death ensues within a few hours, or a complete cure results after one or a few days, with very rare exceptions. The most prominent symptom is spontaneous tetanic spasms, which are produced at intervals, and are increased or excited by the most trifling noise or contact with the patient. During the time between the injection of the poison and the first convulsive fits the patient is able to walk about. The touch which excites or increases the convulsion is far from painful, and patients frequently request bystanders to take strong hold of them, or to rub them during the spasms. The pupils are always dilated—at least, during the fit; in one instance only has this symptom not been mentioned, but this is, perhaps, due to a want of sufficient detail in the description of the case. The other symptoms and the post-mortem examinations offer nothing peculiar, except, perhaps, cadaveric rigidity, which commences much more rapidly, and is more complete and more prolonged, than under normal circumstances. Much stress has been laid on the appearance of the heart and the nervous centres after death, but without sufficient reason. Regarding the treatment, M. Gallard has endeavored to determine by which therapeutical agents the symptoms of the disease may be modified, in order that we may recognize poisoning by strychnia, even when masked by a more or less energetic medication, and also to find out whether there is a really efficacious antidote against this substance. His researches have not embraced the means of evacuating this poison, nor those which may chemically destroy it before absorption has taken place; but he has only experimentally studied the antagonists of strychnia when absorbed, and after those symptoms have already set in which prove that its action on the nervous system has commenced. In order to render the result as certain and precise as possible, he injected into the subcutaneous cellular tissue a concentrated solution of the poison itself, and of the antidotes which have been recommended. Woorara, the properties of which are, according to some, contrary, and according to others, identical (?) with those of strychnia, seemed to him more a curiosity than anything else, as it would not be possible to the practitioner to procure it in a given case with the necessary celerity, and he has, therefore, omitted to investigate its action.

Morphia and coniine have, in the hands of M. Gallard, not justified the hopes which were entertained of these substances. On the contrary, they have rather accelerated than retarded the death of those animals to which he administered them as antidotes to strychnia. Atropine and inhalations of chloroform have also proved useless; and the only substance which really seemed to have any beneficial effect, was aconitine. An animal which had taken a dose of strychnia sufficient to kill it in ten or eleven minutes, survived two hours, and died at last with symptoms of poisoning by aconitine; another animal, to which a smaller dose of the latter poison had been given, recovered perfectly after half an hour; three days afterwards, in order to have an *experimentum crucis*, the same animal was given the same dose of strychnia, after which it died in seventeen minutes. A third animal, however, which was poisoned with 2 1-3 milligrammes of strychnia, died after seven minutes, in spite of the immediate administration of half a milligramme of aconitine, so that the latter cannot be considered an unfailing antidote to the former. —*Paris Correspondence of the London Medical Times and Gaz.*

HOSPITAL NOTES.

Belladonna in Epilepsy, &c.—At the Hospital for the Epileptic and Paralyzed, belladonna and its alkaloid, atropia, are still in favor as remedies for epilepsy. Under these remedies most patients with epilepsy, especially if they suffer much between the paroxysms, are benefited.

In treating epilepsy we must remember that, although in many cases we may not be able to cure, we can very often diminish the number of fits; and even if we cannot do that, the patient's general condition is often much improved. Many patients attend the Hospital who have had fits for very many years, and though they have no hope of being cured, they, nevertheless, experience great benefit, and are rendered capable of resuming a comparatively active life. Although this is not a cure, it is the next best thing to it.

The prescription generally used is—Extract of belladonna a quarter of a grain, quinine one grain, in a pill three times a day. Of atropine, one $\frac{1}{12}$, of a grain is given three times a day. Of both, the dose is gradually increased. Although given in increased doses, they are rarely observed to produce, in epilepsy, much physiological effect. Sometimes, however, the patients complain of dryness in the throat, and of defective sight. We think it will be noticed that patients with dark eyes suffer more from it, and that these patients are often hypermetropic.

When the sight is affected by belladonna or atropine, it is because the ciliary muscle is paralyzed partially or totally, and hence that the power of accommodation is impaired, or altogether lost. It is not likely that it is due to dilatation of the pupil, as in congenital irideremia the accommodation is good, and in a case recorded by Graefe, in which the whole of the iris was removed by operation, it remained perfect. It was lost, however, when atropine was put into the eye.

Patients, of course, complain a good deal when their sight is impaired, however little, by any course of treatment, but they can be assured that the defect is only temporary. In some cases of cataract belladonna has been used for years without injury to the eyes, and without losing its powers.

In no case have we noticed dulness of hearing to be produced by this drug. Very likely there may be some slight impairment of hearing which the patient does not notice. Very often there is tinnitus aurium, and some little defect of hearing attending it, but this is common in epilepsy whether belladonna be given or not. We have not noticed that patients have complained of increase of deafness under its use. If a solution of atropine were dropped into the ear it might then paralyze the small muscles of the ear, and produce defective accommodation of sound, if such a phrase is allowable.

Another method in which Dr. Brown-Séquard uses atropine in epilepsy is to inject a solution of it and morphia into the part from which an aura starts. This was done in several cases with excellent results. A solution containing one sixtieth of a grain of atropine and a quarter of a grain of morphia is injected with Wood's syringe. In the several cases in which it was used it did not produce any immediate effects in the patients, and no giddiness, &c. The operation is not painful.

It is supposed that belladonna acts on the bloodvessels producing contraction. Ergot, also, Dr. Brown-Séquard believes, has this property; and hence their use in local inflammatory conditions of the brain and spinal cord. Ergot, he believes, has a greater action on the vessels of the spinal cord, and belladonna on those of the brain. In paraplegia from myelitis, a pill containing three grains of fresh ergot and a quarter of a grain of the extract of belladonna is given three times a day. The action of belladonna in arresting the flow of milk, and in causing dryness of the throat, may be explained also on the hypothesis of its diminishing the supply of blood to those parts.

OPIUM, CODEIA, &c., IN SLEEPLESSNESS.—The profuse administration of opium in delirium tremens is not so common as it was. It appears to be recognized that, as Dr. C. J. B. Williams points out in his "Principles of Medicine," there is a condition in which a patient is "too weak to sleep," and that, therefore, the best plan to induce sleep is not to attempt to tyrannize over the nervous system by opium, but to support the system by tonics, and stimulants, and nutrients; then, when the patient is strong enough to bear it, opium may be given. We write these remarks, not in reference to any recent case, but to some which occurred in the hospitals some time ago.

Dr. Brown-Séquard sometimes gives codeïa in cases in which it is important to produce sleep. If we wished blindly to compel sleep, opium would be our remedy; but many can, no doubt, call to mind cases of death in delirium tremens after the profuse administration of opium. "Apoplexy with contracted pupil" is, we believe, the name given to such deaths. Again, in cases where we feel justified in giving opium to induce sleep, the manifest disadvantages of doing this at the risk of producing dyspepsia, constipation, and symptoms of "congestion of the brain," make the choice of some other narcotic desirable. In one case, in which codeia, one of the alkaloids of opium, was given, it produced sleep, and was not followed by any of the disagreeable symptoms of confusion in the head, which the patient complained of after taking morphia. It is stated by Dr. Neligan to be half the strength of opium only; but in this case it produced, in similar doses, precisely the effect of an equal quantity of morphia. The dose given was two thirds of a grain, in pill.

Codeia is contained in much smaller quantity in opium than morphia: so that in prescribing opium equivalent to a grain of morphia, we give only one sixteenth to one thirtieth of a grain of codeia.

At the Middlesex Hospital, Dr. Goodfellow employs the plan of subcutaneous injection of opium, in order to get the patient to sleep in delirium tremens. He thinks that it acts more quickly, and produces less constitutional disturbance than the plan of administering it by the mouth. Of course he employs other means, both dietetic and medical.—*Medical Times and Gazette.*

Army Medical Intelligence.

To the Surgeon-General. Newbern, N. C., March 20th, 1863.

Sir,—Your kind letter of the 5th inst. has been received. I have communicated to the other surgeons in this Department your desire to have a copy of the medical history of their respective regiments, such as was furnished the Medical Inspector.

I presume that before this time you have had full details of the "malarial disease," as it is called, which now prevails here; the disease is not malarial in its origin. The fact that it prevails in the winter, when malarious disease does not originate; that it prevails among troops recently arrived here: that it is not paroxysmal in its character: that it is not modified by quinine; and that the pathological changes are totally unlike those which occur in paludal disease, all prove that it is not due to miasm.

I. *Cause.*—That the disease is caused *generally* by living in barracks made of green lumber, and insufficient ventilation, is obvious. The 43d, 45th and 51st regiments were encamped as near together as it was possible for them to be. The former was in tents, and had none of the disease. The two latter were in barracks, and in about four weeks after their arrival the disease began to appear. Upon the average, two cases and two deaths per week occurred in each of these regiments. At last the prevalence of the disease created alarm, and the 45th were ordered to change their quarters; this being done, no new cases appeared. The disease continued to prevail in the 51st until they were removed from barracks, when it suddenly disappeared. What has been said of the 45th and 51st, is also true of the 44th.

The barracks are made of perfectly green hard-pine lumber, and so constructed as to allow only 180 feet of air to each man, with no adequate ventilation. During the stay of the 45th in barracks they had five cases, all of which were fatal. The 51st have had seventeen cases, all of which have been fatal. The 44th have had twenty cases, twelve of which have been fatal: the remaining eight are now under treatment. One case of this disease occurred in my regiment last summer, in a man who was employed in building a block-house of green timber; he occupied the building as his quarters.

I have said that the disease is *generally* caused by living in barracks made of green lumber; but this is not the only cause, for a few cases have occurred among troops not thus quartered. A lad nine years old, son of one of our officers, was attacked with the disease; he lived in a good brick house, and was in all respects well cared for, and, up to the time of the attack, had been perfectly healthy. His case exactly resembled those which occurred among the troops—in fact it was a *pattern* case.

The victims of this disease, so far as my observation extends, have been the most healthy and vigorous men. I have conversed with several of the most intelligent people who reside here (including a physician), and they all agree in the statement that the disease, as an epidemic, never existed here before.

II. *Symptoms.*—The patient is attacked, without warning, with a rigor more or less severe; pain in the head, back and legs, the latter being the most severe; delirium; vomiting; thick white coat on the tongue; bowels constipated; sometimes retention of urine. In some cases "petechiæ" of large size are extremely plentiful from the *outset,* in other cases this symptom does not appear. In some cases the force of the disease is so great as to destroy life within twelve hours; in others, the patient continues to live without marked change in the symptoms until the strength gradually succumbs, in a period varying from two days to several weeks. I have not yet known a case of perfect recovery; the one nearest approaching it, that I have seen, was a case which came before the Board of Examiners for discharges, of which I am a member; this man was completely broken down; he had chronic iritis and permanent blindness of one eye.

III. *Pathology.*—Uniformly the disease is found to be inflammation of the meninges of the brain and spinal cord. When death occurs early, say in twelve hours after the attack, the arachnoid at the top of the brain is found to be opaque; the disease extends from this point to the base of the brain, and down the spinal cord. If the patient survives the attack for two or three days, large coagula of lymph are found beneath the dura mater, from the top of the brain to the cauda equina; at this stage of the disease the lymph is of a greenish-yellow color, and partially disorganized; there is also some softening of the cerebral substance, but I have not yet seen pus. Sometimes the dura mater is adherent. There is also effusion of serum beneath the dura mater, and into the ventricles, amounting in some cases to five ounces. In many cases a considerable amount of congestion is found, but this condition is by no means constant. The disease appears to originate in the arachnoid. In all the cases that I have seen no other organic lesion has been found, acute or chronic, than the one above described, although the thoracic and abdominal viscera have been carefully examined.

IV. *Treatment.*—No treatment has been of any avail. When the disease first appeared it was supposed by those who had it in charge to be of malarious origin, and was consequently treated by quinine. Other cases have been treated antiphlogistically—by venesection, cupping, blisters, cold applications, sinapisms to extremities, cathartics and mercurials. When petechiæ appeared early in the disease it was treated as typhus, with oil of turpentine, &c., and supporting diet. These different plans of treatment have been combined as indicated by the symptoms, and, so far as my knowledge extends, without favorably modifying the course of the disease.

When I commenced this letter it was not my intention to trouble you with an account of this epidemic. I presume that you have had, or will have, elaborate reports from those surgeons who are in charge of the regiments in which the disease has prevailed. This very imperfect and hasty sketch is made from memory, and of such facts as I have observed, and such as occur to me at the moment of writing.

The accompanying specimen shows how slight an injury (gun-shot) requires amputation. Private James McKnight was wounded at the battle of Whitehall, on the 16th of December last. He was struck in the left leg, just above the external malleolus, by a round musket ball, and did not at the time think himself much hurt. He walked from the battle-field to the hospital, about one third of a mile in the rear, where he remained until the 18th, when he was conveyed, together with the rest of the wounded, to Newbern—distance about forty miles. He was brought to the hospital under my charge on the 20th, when I saw him for the first time. Upon examination, no ball could be found, and it was clear that the missile had dropped from the wound. He was placed in bed, and water-dressing kept constantly applied; it soon became evident that the joint had been injured. Inflammation, followed by suppuration in the joint, supervened; the leg and foot became extensively involved, and the constitutional symptoms were such as to indicate immediate amputation. I performed this operation in the upper third of the leg, after which the patient made a rapid convalescence.

It is thought by many that amputations upon the battle-field are sometimes needlessly performed. This may be true, but I am sure that the reverse is often true. The golden opportunity for the operation is immediately upon the reception of the injury.* During the three engagements which took place upon the Goldsboro' expedition, about one hundred and fifty wounded men were brought to me. It was impossible for me to operate in every case which in my judgment required amputation, for want of time. I therefore selected the worst cases for operation, and left the remainder to "conservative surgery." I watched these cases afterwards, at the different hospitals, with great interest, and regret to say, that in every case of gun-shot fracture of the long bones,† for which primary amputation had not been done, the patient finally lost his limb, and in some cases his life also; while, on the other hand, those who had undergone primary amputation made rapid recovery in nearly every case.

During the expedition referred to, I performed eight primary amputations, and all recovered rapidly, and with no unpleasant symptom, except in one case, which was one of double amputation. Private Rand was struck by a round shot, which completely crushed his left arm, near the shoulder, and his right thigh near the knee. I amputated the arm at the shoulder-joint, and the thigh in the middle third. He was transported from Kinston to Newbern, partly by land and partly by water, and was about forty hours on the passage. He convalesced remarkably well for five weeks. The wound at the shoulder healed up entirely, and the wound of the thigh nearly so. At the end of five weeks he was attacked by intermittent fever, and finally died of pyæmia, in about seven weeks after the reception of the injury. The remaining seven amputations were as follows, viz. :—four of forearm, one of arm, one of leg and one of thigh.

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* The severe shock and depression of spirits which immediately follow severe wounds in civil life, do not often appear in those injured in battle, unless some vital organ is injured and the wound is mortal. On the contrary, the patients are in a high state of excitement and exhilaration, a condition highly favorable for immediate operation, which, if done at such time, produces no shock to the system; this condition, however, soon passes, and if not improved the golden opportunity is lost forever.

† Not including those of the hands and feet.

I trust you will pardon me for the length of my letter, for, as the parson said of his sermon, I haven't time to make it shorter.

I remain respectfully, your obedient servant,

I. F. Galloupe, *Surgeon 17th Mass. Vols.*

To the Surgeon-General. Dorchester, Mass., March 28th, 1863.

Dear Sir,—I visited the camp at Readville yesterday, and was gratified with the matters I saw there. The field was muddy, and could not be otherwise at this season ; but the barracks were all clean and comfortable, much more so than I could have expected from the condition of the grounds. I was especially gratified with the condition of the colored troops—the order, propriety and discipline of the men, and their attention to their comfort in their barracks. In this respect there was some fear ; but my inspection showed that my fears were not well founded.

The troops were generally healthy. Several were suffering from colds, two with pneumonia, &c., in the hospital, and two had died. This was to be feared, from the greater proclivity of the colored race to pulmonary troubles.

The kitchens and the food of the colored men were as satisfactory as those of any other men in any of the camps. But I was pained to find the *privies*, of both the colored troops and of the other regiment or companies, in a *very foul* state. I took the officers with me to both, and they were themselves surprised and grieved to see such exhibitions of neglect, and both devised a remedy. These officers were new, and not yet acquainted with camp police, and wanted instruction as to the responsibility for and the means of removing such evils, which ought at once to be remedied.

With this exception, I was entirely satisfied with the condition of the camp.

I had another object in this visit—that is, to see the discipline and learn the susceptibility of discipline of the colored men. I watched their habits, manners, and bearing, both in barrack and in the field, separately and in companies ; and so far as they were presented yesterday, I am happy to say that the enlistment of these men and of this class of people promises to be successful. I think His Excellency the Governor, who has taken great interest in this matter, has reason to be satisfied with the experiment, so far as it has been tried here.

Yours respectfully, Edward Jarvis.

Smallpox in Scotland.—During the past year the smallpox was very prevalent at Edinburgh and Leith. In the Report of the Registrar-General, it is stated that the disease was carried from Leith to several parts of Scotland, which raises the important question whether some legislative enactment is not necessary to prevent persons laboring under epidemic disease from travelling by railways, steamboats, or other public conveyances.—*London Lancet.*

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, APRIL 9, 1863.

Antiquity of Man.—Not many years ago it was thought highly irreverent, to use the mildest term, to entertain any opinions with regard to the natural history of this globe, which were not entirely in accordance with the biblical account of its creation as interpreted for us by the Fathers of the Church centuries before the new light of natural science broke forth to illuminate the darkness and ignorance of the past. How great that darkness was, we are learning each day we live, as nature makes some startling revelation to us from her newly-upturned pages—the graves of her buried history. Since the first ray of dawn enlightened us with the knowledge that the world was not made in six days, each year has added as many thousands of thousands to its probable age, as we recognize from time to time the number of separate creations which have lived and died, and given either place or birth to others still later upon its ever-increasing surface. At last man has learned that the history of the creation may be read more truthfully in impressions left upon stone tablets and in tangible witnesses than in pages written by theological writers, and that the geologist and palaeontologist are the proper authorities to interpret the mystical words of Genesis. The origin of man, too, remained a "tabooed" subject until eminent naturalists, pushed to boldness by the very strength of their convictions, proclaimed the Adamic theory, as generally interpreted, impossible of application to the whole human family, and denied the unity of the races. In all the discussion which arose upon this question, few, even among the freest thinkers, dared hint that the birth of man might antedate the present geological epoch, and the rare exhibitions of fragmentary remains supposed by their discoverers to be human and pre-Adamic, have up to within a year or two always been the occasion of simple ridicule among men of science. But while eminent naturalists were laughing, an enthusiastic and undaunted French observer, M. Boucher de Perthes, of Amiens, had been collecting and writing about certain objects of flint found by him deeply buried in undisturbed beds of gravel in the Somme valley, associated with the remains of extinct mammalia, and deposited there in the drift period at a date anterior to that at which the surface of the earth assumed its present outline. There can be no question that these implements, rudely-shaped hatchets, knives and arrow-heads, were fashioned by the hand of man, and the collections gathered from these and other localities now furnish convincing proof that a human race lived and died upon this globe at a period when we thought it given up entirely to the sway of antediluvian monsters.

Since the publication of Mr. Darwin's work on the Origin of Species, many questions connected with the natural history of man, and once considered satisfactorily settled, because never before critically challenged, have become a matter of exciting discussion, and within a few months the literary and philosophical world has been most thoroughly aroused by the appearance of the works of Bishop Colenso on the Pentateuch, of Prof. Huxley on the Ape origin of Man, and of

Sir Charles Lyell on the Antiquity of Man. The conservatives in theology and science have been startled and put to their wit's ends to answer the doubts and arguments thus raised against their long-cherished opinions, and even such an authority as Prof. Owen has been shaken on points of fact.

It is not, however, our intention at this time to dwell upon these questions, of such deep interest in ethnology, and which will claim the attention of every student of nature and anatomy, but merely to allude to them in connection with investigations recently made in relation to races less ancient than those of the drift period above alluded to, but still old enough to show how erroneous is the Hebrew version of the length of man's existence upon the earth. The following succinct account of the Ancient Lake Habitations of Switzerland, the remains of which he had explored, was recently given by Mr. John Lubbock, F.R.S., in a Royal Institution lecture :—

"In the winters of 1854 and 1855 the rivers of Switzerland did not receive the usual supplies of rain, and the water in the lakes consequently fell much below its ordinary level, so that in some places a broad strand was left uncovered along the margin, and in others shallow banks were converted into islands. In a small bay on the Lake of Zurich the inhabitants increased their gardens by building a wall along the new water line, and slightly raised the level of the piece reclaimed by mud dredged from the lake. In the course of this dredging they found a great number of piles, deer-horns, and some implements. The researches at this place, conducted and described by Dr. F. Keller, were followed by similar investigations in other lakes, and proved that the early inhabitants of Switzerland constructed at least some of their dwellings above the surface of the water, as is done to this day by the Papous of New Guinea, whose circular or square-formed huts are grouped on wooden platforms a few feet above the water, supported by numerous piles driven into the mud and connected with the land by a narrow bridge. Herodotus (book v., chap. 16) describes the Pæonians living in a similar manner on Lake Prasias, in Thrace. The ancient Irish also erected fortresses, termed "crannoges," on their lakes. The Swiss "pfahlbauten" (pile-buildings) are especially described by M. Troyon in his "Habitations Lacustrines." The native archæologists, laboring hard in this new mine of research, have discovered a very large number of settlements formed of these buildings—e. g., in the Lake of Geneva, twenty-four; Lake Neufchâtel, twenty-six, &c. Judging from the objects found on their site, these buildings appear to be of three different eras, which Mr. Lubbock dwelt upon separately—the stone, bronze, and the iron ages. In the buildings of the stone era great numbers of axes, knives, arrow-heads, and implements of stone were found, mingled with others of bone, accompanied by pieces of broken pottery, the bones of the animals which had served as food, and what appeared to be bread and fruit. In the buildings of the bronze age these weapons, &c., were found made of bronze, with some attempts at ornaments, indicating a higher degree of civilization. At the settlement at Estavayer, Lake Neufchâtel, were found 214 objects in bronze, including pins, knives, bracelets, sickles, rings, buttons, &c. The pottery was better and more varied in form than that of the stone age, and there were found articles which afforded evidence of the existence of commerce. Both these ages are pre-historic. As time went on, the pileworks of Switzerland appear to have become gradually less numerous. In the stone age they were spread over the whole country; during the bronze era they were confined to the lakes of Western Switzerland; and during the last, the iron age, they are only found in the Lakes of Bienne and Neufchâtel. In the last appear copies of the bronze axes made in iron, just as in the early bronze celts were copies of the earlier stone axe. A field of battle at Tiefnau, near Berne, is remarkable for the number of iron weapons and implements found in it, accompanied by pieces of Gaulish and Massaliote money anterior to our era. After this period no more evidences of lake inhabitants are found on a large scale. A few fishermen may have lingered on the half-destroyed platforms; but the wants and habits of the people had changed, and the age of pileworks was at an end. With regard to the age of these lake habitations, M. Morlot calculates for the bronze age an antiquity of from 3000 to 4000 years; for the stone age from 5000 to 7000 years; for the whole an age of about 11,000 years."

SUFFOLK DISTRICT MEDICAL SOCIETY.—At the annual meeting of the Society, held in Temple Place, Wednesday, April 1st, the following gentlemen were elected officers for the ensuing year:—*President*, Dr. D. H. Storer. *Vice President*, Dr. S. L. Abbot. *Secretary*, Dr. D. W. Cheever. *Treasurer*, Dr. C. D. Homans. *Librarian*, Dr. C. Ellis. *Supervisors*, Drs. G. H. Gay, D. McB. Thaxter, *S. Boston*. *Commissioner on Trials*, Dr. S. Durkee. *Censors*, Drs. F. E. Oliver, F. Minot, H. W. Williams, C. D. Homans, J. N. Borland. *Councillors*, Drs. J. Bigelow, G. Hayward, J. Homans, J. C. Dalton, J. Jeffries, P. M. Crane, *E. Boston*, J. Flint, D. H. Storer, H. Dyer, S. Morrill, A. A. Watson, A. A. Gould, J. B. S. Jackson, E. Palmer, H. I. Bowditch, H. G. Clark, J. B. Forsyth, *Chelsea*, J. M. Warren, G. C. Shattuck, J. W. Warren, C. E. Ware, W. J. Dale, S. L. Abbot, J. Ayer, W. W. Morland, S. Cabot, Jr., W. E. Coale, G. Hayward, Jr., J. S. Jones, H. J. Bigelow, F. Minot, A. B. Hall.

The President and Secretary were empowered to appoint delegates from the Society to the meeting of the American Medical Association to be held at Chicago in June next.

THE following resolutions were passed by the Resident Medical Staff of Bellevue Hospital, in reference to the death of two of its members. They were young men, only a year in the profession, and were both natives of Massachusetts.

Whereas, in the midst of the faithful performance of their professional duties, the wisdom of an inscrutable Providence has seen fit to remove from our number Dr. Henry W. Cook and Dr. Wm. H. King, therefore be it

Resolved, That in their death we feel poignant sorrow and regret in the loss of those who have been associated with us in the closest ties of friendship and love, as well as in the common interests of a self-sacrificing profession.

Resolved, That with the relatives and friends of our deceased associates we do sincerely mourn as for a common brother, and that as an expression of our loss we will wear the usual badge of mourning for thirty days.

W. R. GILLETTE,
T. K. CHANDLER, } *Committee.*
H. E. PAINE,

STATISTICS OF THE GLOBE.—The following curious facts are stated by the *Abeille Médicale*:—The earth is inhabited by about 1,288,000,000 of inhabitants, viz.: 369,000,000 of the Caucasian race, 552,000,000 of the Mongolian race, 196,000,000 of the Ethiopian, 1,000,000 of the American Indian, and 200,000,000 of the Malay races. All these respectively speak 3064 languages, and profess 1000 different religions. The amount of deaths per annum is 333,333,333, or 91,954 per day, 3730 per hour, 60 per minute, or 1 per second: so that at every pulsation of our hearts, a human being dies. This loss is compensated by an equal number of births. The average duration of life throughout the globe is 33 years. One fourth of its population dies before the seventh year, and one half before the seventeenth. Out of 10,000 persons only one reaches his hundredth year, only one in 500 his eightieth, and only one in 100 his sixty-fifth. Married people live longer than unmarried ones, and a tall man is likely to live longer than a short one. Until the fiftieth year women have a better chance of life than men, but beyond that period the chances are equal. Sixty-five persons out of one thousand marry. The months of June and December are those in which marriages are most frequent. Children born in spring are generally stronger than those born in other seasons. Births and deaths chiefly occur at night. The number of men able to bear arms is but an eighth of the population. The nature of the profession exercises a great influence on longevity: thus out of 100 of each of the following professions the number of those who attain their seventieth year is—among clergymen, 42; agriculturalists, 40; trades and manufacturers, 33; soldiers, 32; clerks, 32; lawyers, 29; artists, 28; professors, 27; and physicians, 24; so that those who study the art of prolonging the lives of others are most liable to die early, probably on account of the effluvia to which they are constantly exposed. There are in the world 335,000,000 of Christians, 5,000,000 of Jews, 600,000,000 professing some of the Asiatic religions, 160,000,000 of Mahometans, and 200,000,000 of Pagans. Of the Christians, 170,000,000 profess the Roman Catholic, 76,000,000 the Greek, and 80,000,000 the Protestant creeds.

DRS. G. E. FRANCIS, D. H. Hayden and C. E. Vaughan, of the last class of graduates of the Harvard Medical School, have accepted appointments to serve on the hospital steamboats of the Western rivers. They are specially qualified for this service, having for the past year held the position of house pupils in the Massachusetts General Hospital. We feel sure they will be regarded as a valuable acquisition to the medical staff of the West.

AMONG the recent changes in the Medical Department of the Army, we notice that Surgeon James Bryan, a valued correspondent, has been assigned to duty in the Department of Tennessee.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, APRIL 4th, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - - -	36	34	70
Ave. mortality of corresponding weeks for ten years, 1853—1863,	36.6	37.0	73.6
Average corrected to increased population - - - -	00	00	81.14
Death of persons above 90 - - - - - - - -	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
19	2	4	7	0	0	0	1

PAMPHLETS RECEIVED.—The Sunbeam and the Spectrascope. By Howard Townsend, M.D. (From the Author.)—Complete Record of the Surgery of the battles fought near Vicksburg, Dec. 27, 28, 29 and 30, 1862. By E. Andrews, late Surgeon 1st Illinois Light Artillery.—Report of the Committee of the Overseers of Harvard College appointed to visit the Library for the year 1862.—Report of the Pennsylvania Hospital for the Insane for the year 1862.

JOURNALS RECEIVED.—Edinburgh Medical Journal, March, 1863.—American Medical Times, vol. vi., Nos. 13 and 14.—The Lancet, vol. i., Nos. 7, 8 and 9, for 1863.—The Chemist and Druggist, vol. iv., No. 43.—The Medical and Surgical Reporter, vol. ix., Nos. 19, 20, 21 and 22.—The Dental Register of the West, March, 1863.—Chicago Medical Journal, March, 1863.—Chicago Medical Examiner, January, 1863.

MARRIED,—In this city, March 31st, Dr Albert C. Johnson, of Lowell, to Miss Susie J. Floyd, of Billerica.—In Salem, March 26th, Edward C. Mundy, M.D., of Staten Island, N. Y., to Miss Laura Josephine Andrews, of Salem.

DEATHS IN BOSTON for the week ending Saturday noon, April 4th, 70. Males, 36—Females, 34.—Accident, 1—apoplexy, 1—disease of the blood, 1—congestion of the brain, 1—bronchitis, 1—consumption, 19—convulsions, 3—croup, 2—debility, 2—diphtheria, 1—dropsy, 1—dropsy of the brain, 1—scarlet fever, 4—gastritis, 1—infantile disease, 1—intemperance, 3—disease of the kidneys, 1—congestion of the lungs, 1—inflammation of the lungs, 7—marasmus, 1—old age. 2—paralysis, 2—premature birth, 2—puerperal disease, 2—scrofula, 1—sore throat, 1—suicide, 1—unknown, 3—whooping cough, 3.

Under 5 years of age, 25—between 5 and 20 years, 4—between 20 and 40 years, 21—between 40 and 60 years, 12—above 60 years, 8. Born in the United States, 46—Ireland, 20—other places, 4.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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A CASE OF PATENCY OF THE FORAMEN OVALE, WITH CONSIDERATIONS UPON DIAGNOSIS.

By Dr. Friedrich Reisch, Assist. Surgeon in the Imperial Gen. Hospital, Vienna.

[Translated from the "Wochenblatt der Zeitschrift der k. k. Gesellschaft der Aerzte in Wien," No. 43, 1862, by B. Joy Jeffries, M.D., Boston.]

It is generally considered that patency of the foramen ovale produces no disturbance of the circulation so long as the valvular apparatus of the heart remains intact (Rokitansky, Bamberger, Meckel, Bizot), and mingling of the blood through the opening only takes place when impediments to the circulation are caused by anomalies of the large vessels or diseased conditions of the valves and entrances. According to the peculiar anomaly of the heart, the blood flows from right to left or from left to right (Corvisart, Bamberger).

A case in support of this opinion appears to me worthy of record, as similar cases do not often come under observation, and I can, moreover, point out in connection a cause for the venal pulse, not yet observed, so far as I know.

March 11th, 1862, there was received in the third medical ward of the general hospital, a woman, æt. 49, Catholic, married, day-laborer, born in Bohemia. The patient stated that in the beginning of the winter of 1861 (November) she had been sick with rheumatism, and since that time had suffered with thoracic troubles, such as shortness of breath, cough, and palpitation. These symptoms had grown very much worse during the last few weeks, and cyanosis and dropsical swelling of the feet and abdomen had come on. The patient knew nothing of any former attacks of disease, and said she had not previously suffered from cough, palpitation, or cyanosis, having been several times confined without disturbance of her general health. The patient was strongly built, pretty well nourished, and the muscular system well developed, the face perfectly cyanotic, the veins of the neck distended to twice their usual calibre, swelling out, and a *pulsation perceptible in them synchronous with the systole.*

Examination of the chest disclosed double pleuritic exudation and severe bronchial catarrh. Dulness over the region of the heart extended on all sides, the impulse plainly perceptible to the touch between the sixth and seventh ribs, outwards from the mammary line. Auscultation gives a loud systolic murmur, most strongly heard at the apex, and a weak, indistinct second sound. Over the lower end of the sternum no murmur is heard, but two feeble sounds. A strong accent on the second pulmonary sound. Sounds of the aorta clear. The liver projects three fingers' breadth under the curve of the ribs. Abdomen distended, fluctuating. Lower extremities œdematous. Great dyspnœa. Pulse over 100, but small. Urine without albumen.

From this *status præsens* it was evident that decidedly impeded circulation was causing dropsical effusions, the immediate cause of which was an evident insufficiency of the bicuspid valves.

The cyanosis of the face was so great, the swelling of the jugular veins so marked, and moreover a regurgitation of the blood through them so evident, that some other explanation of these phenomena was necessary than simply mitral insufficiency.

Insufficiency of the tricuspid valves, which would have given a ready solution, could not be discovered, for, as above remarked, I heard, to my astonishment, over the right ventricle no murmurs, but sounds.

The pressure of the pericardial exudation upon the auricle did not seem to me sufficient explanation, for although it generally causes a systolic swelling of the veins, no regurgitation of the blood is thereby caused.

Abnormal contraction of the auricle did not seem supposable, for then the regurgitation would not be synchronous with the systole.

Finally, I thought of congenital malformation of the heart, but this did not appear possible, as the patient had not previously suffered from cyanosis, and was well built and developed.

The explanation of these phenomena remained, therefore, *in suspenso*, till the patient died, on the 20th of March, 1862.

The *post-mortem*, made on the 21st of March, by Dr. Schott, assistant of Herr Hofrath Rokitansky, gave the following result.

Jugular veins on both sides greatly dilated, filled with dark fluid blood. Mucous membrane of the air-passages reddened. Bloody mucus in the air-tubes.

In the right pleural cavity six, in the left five pounds of clear yellowish fluid.

The lungs vesicular. The upper lobes rich in pigment. The lower lobes dry and free from blood, in the left the bronchi dilated, the mucous membrane reddened and covered with viscid mucus. In the pericardium half a pound of clear serum. On the outer wall of the pericardium extensive patches of tendon and band-like pseudomembrane; the same over both ventricles, and especially over the right auricle. The heart enlarged, chiefly from active dilatation of the right ventricle. Substance of the heart in the left ventricle pale brown, soft, easily tearing; in the right, hard and having a fatty polish.

The mitral valves thickened on their free edges, the chordæ tendineæ and insertion-borders rather delicate; the other valves and openings, including the tricuspid, not altered.

The valve of the foramen ovale is imperfect; it ends anteriorly in a crescent, forming, with the anterior portion of the isthmus, an opening which admits the end of the little finger.

In the abdominal cavity several pounds of serous fluid.

From this examination, I think the symptoms during life may be thus explained.

The congenital defect of the valve of the foramen ovale caused, in this case, no cyanosis up to the time of the patient's illness. No communication of blood took place in the auricles whilst the valves acted normally, the pressure in the two arteries causing an equilibrium which prevented the passage of blood from one chamber into the other.

The endocarditis which the patient had at the commencement of the winter caused insufficiency of the mitral valve, producing increased pressure in the left auricle, so that not only was there obstruction to the pulmonary circulation, but a certain amount of blood was pressed into the right auricle through the foramen ovale, proportionate to the relative pressure in the two auricles and the size of the opening. Herein must lie the cause of the great degree of cyanosis, and the evil effects upon the circulation of the mitral insufficiency were thus very much increased.

The passage of the blood must have occurred during the ventricular systole, for the difference of pressure in the two auricles would be at its height during this time. The blood streaming from the left into the right auricle must have caused obstruction to that flowing from the venæ cavæ, and so produced in it an impulse in centrifugal direction, thereby giving rise to the systolic venal pulse. In order to produce a systolic venal pulse in such a case, the abnormal opening must be of a certain size, and the contraction of the heart sufficiently energetic. The amount of blood forced through a very small opening could not be capable of producing this phenomenon.

From this observation it would seem that the appearance of a venal pulse is not of itself sufficient to prove the existence of tricuspid insufficiency, for the former may occur under circumstances similar to those in the above case.

April 1, 1863.

During the year 1861 and the first six months of 1862, 5113 coroners' inquests were held in England and Wales, the metropolital district having 1519. In one county, Merioneth, no inquest was held.

HOSPITAL NOTES AND MEMORANDA.

By J. Baxter Upham, M.D., Surgeon in charge of Stanly Gen. Hospital.

Additional Cases illustrative of the Cerebro-spinal Affection occurring in and around Newbern, N. C.

The two cases immediately following are reported by Assist. Surg. J. B. Treadwell, having been received in the wards under his care.

Case IX.—Private J. W. M., aged 21, was admitted to Hospital on the 17th of January. No notes of disease during its progress have been preserved. The disease was sudden in its attack and severe in its manifestations, and ran its course rapidly, terminating in death on the 20th, three or four days subsequent to its onset.

Autopsy.—Body of medium size; muscular development good. *Head.*—Upon removing the calvaria, the surface of the cerebrum beneath the arachnoid was found to be covered with a questionable lymph, most abundant along the longitudinal fissure and in the sulci between the hemispheres, and a larger deposit at base of cerebellum, between its lobes, as well as over its surface. This deposit is of a pale greenish yellow, and diffluent upon raising and loosening the membranes. Free deposit also at the crossing of the optic nerves and along the origin of the nerves generally. Pia mater beneath appears normal. Similar lymph-like matter observed in the posterior corner of left ventricle. *Chest.*—Pericardium normal. Firm clots of fibrine in the cavities of the heart. Valves, with the exception of apparently old indurations of mitral valves, normal. *Abdomen.*—All organs healthy. Peyer's patches indistinct.

Case X.—J. Y., a private, aged 22, was admitted to Hospital January 14, 1863, at which time his regimental surgeon, Dr. Ware, gave the following statement of his case: "Congestive attack yesterday morning, with intense headache, vomiting, &c. Cupping to the extent of five ounces. Quinine, forty grains in twenty-four hours, with half a drachm of whiskey every two hours. Has had two drops of veratrum viride. Much easier this morning."

Symptoms, on admission, were as follows:—general expression of countenance not anxious, mind clear; pupils slightly dilated; skin moist and cool; pulse 86, regular and moderately full; respiration 24, and slightly labored; tongue moist, slightly furred in centre; abdomen natural; bowels regular. To take, at night, five grains of quinia every hour, and ol. terebinth. twenty drops in emulsion every three hours.

Jan. 15th.—Had some headache; pulse 86, not very full; tongue moist; skin moist and cool; complains of pain in legs.

16th.—Pulse 96, rather fuller than yesterday; tongue moist and dark, furred in centre; respiration 26, rather labored; general surface natural. Treatment continued. P. M., appeared better; pulse 90; slight headache.

17th.—Pulse 100; slight delirium since ten o'clock, A.M.; two dejections since yesterday; respiration 22, quiet. Treatment continued.

18th.—Pulse 90, rather weak; tongue moist and clear; one dejection; abdomen normal; mental condition good; in all respects apparently better. Wine, one ounce, every three hours.

19th.—Better. Continue treatment.

20th.—Pulse 84; tongue moist; respiration quiet. Treatment continued.

29th.—Until the 29th continued to improve rapidly. On this day pulse 160, quick and full; severe headache; respiration embarrassed: tongue dry; bowels regular. Sinapisms to back of neck, and mustard foot bath.

30th.—Has been delirious since visit last evening; slept very little during the night; pulse 120; tongue dry and darkly furred; respiration 26; two dejections since yesterday. Mustard foot bath. ℞. Equal parts (ʒ ij.) of fld. ext. valerian and aqua camph. every three hours.

31st.—Much the same as yesterday, although delirium less marked. ℞. Whiskey, ℥ i., every two hours, in addition to wine.

Feb. 1st.—Mind quite clear; countenance anxious; pulse 120, rather weak; strabismus of right eye (convergent); complains of headache; had slight diarrhœa, which came on during the night. Continue treatment; opii et plumbi acet. to be added.

2d.—Appeared somewhat better than yesterday. Treatment continued.

3d.—Died rather suddenly at 3, P.M., without any symptoms of exhaustion.

Autopsy, nineteen hours after death. Body of medium size, but little emaciated. Considerable rigor mortis. *Head.*—Brain firm and of natural consistency. Some cloudiness of arachnoid and slight deposit of lymph between convolutions on superior portion of cerebral hemispheres. Inferior aspect of cerebellum and medulla oblongata covered by a layer of lymph, averaging one sixth of an inch in thickness, and situated beneath the arachnoid, firm, like ligamentous structure. About one ounce of fluid in left lateral ventricle, in which were floating small flocculent masses, and at its posterior cornua was found about one drachm of purulent matter. Same appearance observed in right ventricle to somewhat less extent. *Thorax.*—Heart normal. Lungs healthy; very slightly congested at posterior portion. All the organs of the abdomen were healthy.

Case XI.—A. W., a private, aged 20 years. Occurred in the wards under the care of Dr. H. W. Siddall, Asst. Surg. 35th Penn. Patient was brought into Hospital on Tuesday, March 17th. Previous history of the case, gathered from his comrades, is that—

March 16th, 1863.—Was taken with a chill and vomiting the night before, while on picket duty, having recently returned from a fatiguing march of 60 miles in two days. Complained of headache and pain in limbs; some fever.

17th.—Very restless during the night, much tossing about; became delirious this morning, with continued anorexia. Was received into Hospital about 11 o'clock, in a moribund condition, collapsed and pulseless; cold and livid skin, and insensible; tossing about with much violence; purpural spots covering a great part of legs and body; lips livid and covered with black sordes; could not open his mouth sufficient to see his tongue; the tip was moist, however. He was ordered a stimulating mixture of carbonate of ammonia; was well washed and rubbed.

7, P.M.—Much in same condition; extremely restless. Directed sinapisms to legs, wrists, &c. To take whiskey and quinine, with a portion of morphine every hour. It was with much difficulty he could be made to swallow the medicine. Continued violently restless until 11 o'clock, P.M., when he died, in a prone position.

Sectio Cadaveris, twelve hours after death. Body well developed; no emaciation; almost covered with purpura. Rigor mortis great. *Head.*—Upon opening the head, and removing the dura mater, the brain was seen covered with a layer of lymph, pervading the arachnoid membrane throughout; also, to a less extent, about the base of the cerebellum, medulla oblongata and the origin of the nerves of sense. Lymph was also seen to some extent in the lateral ventricles at the posterior part, and also a fungoid growth appeared, attached to the floor of each ventricle, being each about fifteen lines long and four lines thick. The spinal cord was examined to the extent of about three inches, which was found apparently healthy, with no appearance of extravasated lymph. *Chest.*—The heart was larger than natural, but without any signs of diseased structure. The cavities, however, were found filled with firm lymph, of a bright lemon color—the right auricle containing a complete cast of the cavity, with a prolongation into the superior vena cava. The lungs were congested throughout, but otherwise healthy; crepitant. The pleuræ exhibited no signs of disease. *Abdomen.*—Liver about one half larger than natural, somewhat congested, but otherwise healthy. Spleen somewhat larger than natural, congested and much softened. Kidneys healthy in appearance, with a small quantity of fluid lymph in the pelvis of each. Stomach and bowels healthy. No disease of Peyer's patches.

Case XII.—The following case occurred in regimental hospital, the account of which, during its progress, was furnished by Dr. Kneeland, Surgeon of the regiment. The autopsy was made here, by Assist. Surgeon Treadwell.

Private W., aged 31, had enjoyed the most robust health since coming to this Department, and would be selected among his comrades as one of the healthiest and strongest men in his company; stature was short, and form robust; had become quite fleshy since entering the service.

Jan. 11th.—Was on duty all day, Jan. 11th. At night began to feel unwell, and went to the hospital at midnight to get medicine for headache. ℞. Sp. ætheris comp., ʒ ss. Had severe chill later in night, with severe headache and "pain in bones."

12th.—Much the same as in night. ℞. Hyd. chlor. mit., gr. x.; quinia sulph., gr. x. M. Dejection in a few hours; headache not relieved; skin hot; pulse weak, not much accelerated; tongue dry; not much thirst; no cough. Cold applications to head. ℞. Potas. nit., gr. x.; pulv. ip. et opii, gr. v.; capsici, gr. v.; quinia sulph., gr. iij. M. Wrapped in blankets. Perspired freely, and expressed himself at night as having less pain, although headache continued undiminished. At 8, P.M., had ℞. Spts. ætheris comp., gtt. xxv.; liq. morph. sulph., ʒ i. M. Cold applications to head, and warmth to body by means of blankets. At midnight, comatose; eyes open, pupils insensible to light—one dilated, the other natural; large ecchymoses on upper surfaces of globes, under sclerotic apparently; impossible to arouse patient; respiration not stertorous, and performed through the tightly-shut teeth in a hissing manner; no convulsions or rigidity, with exception of obstinate closure of jaws; head very hot; pulse 125, moderately strong, compressible; occasional uneasiness, but no evident agitation; skin natural; no vomiting or chills. Enema of turpentine, no dejection following. Sinapism to abdomen. Hot foot-bath. Brisk rubbing of whole body with ol. terebinthæ for half an hour. Turpentine enema repeated. Urine passed involuntarily; paralysis of sphincter ani. These remedies seemed to be useful in bringing down the frequency of the pulse and increasing its strength. The respiration and facial expression became more natural, and the lids were frequently closed. Friction over surface continued; also repeated doses of hyd. chlor. mit. and quinia sulph. to be given.

Jan. 13th.—At 2½ o'clock, A.M., Jan. 13th, the respiration became slow and interrupted, the pulse fell, and death quietly took place.

Autopsy, fourteen hours after death. *Head.*—Vessels of cephalic membranes containing more than normal amount of blood. Entire cerebral mass less firm than natural; marked softening of superior portion of left cerebral hemisphere. *Thorax.*—Heart larger than normal, less firm than usual. Right cavities contained a large amount of dark colored fluid blood. Left lung considerably engorged with dark colored blood and frothy serum, most marked in posterior lobe. Right lung; posterior lobe very much congested; small portion of anterior lobe healthy. Both lungs crepitant. *Abdomen.*—Liver nearly twice its normal size and weight; large venous vessels very much engorged. Texture of a pale yellowish color and more friable than usual. Imparted a greasy stain to paper, and, after being slightly dried, burned with readiness. No question about its being in a state of complete *fatty degeneration.* Spleen normal, with exception of some congestion. Kidneys one half larger than natural. Other abdominal organs healthy. Body well formed and in good condition. Conjunctivæ injected, and in some places presenting the appearance of ecchymoses.

The cases which follow were received into the "Academy Hospital" at Newbern. The notes in regard to them have been kindly furnished me by Dr. Clayton A. Cowgill, U.S.V., Surgeon in charge, under whose immediate supervision the cases were treated and the record of them drawn up.

Case XIII.—F. D., aged 23 years, a deck-hand on steamer Pawtuxent, was admitted Dec. 20th, 1862, with well-marked symptoms of inflammation of the brain—violent excitement, with contracted pupils, pulse not much quickened, tenderness at nape of neck. He was cupped, blistered and treated principally with calomel and ipecacuanha. In about three weeks he exhibited marked symptoms of improvement, although with mind confused. About this time the iodide of potassium was used in his case. After being much better for a week, sitting up and giving rational answers, in most instances, he became suddenly worse, and soon sunk into stupor, and died on the 24th of January, 1863.

Post-mortem examination exhibited great injection of pia mater, deposits of yellowish lymph along the sulci of the upper surface of hemispheres, and a thicker deposit of apparently plastic purulent matter over the pons Varolii and medulla oblongata; two ounces of serum in the lateral ventricles. The spinal column was not examined. The thoracic and abdominal organs were all healthy.

Case XIV.—E. F. W., a private, aged 18 years, was admitted Friday, Jan. 30th, 1863. Had a slight chill yesterday afternoon, and became suddenly and violently delirious in the evening. Upon admission, pulse 90, full; very delirious; tongue clean and moist; contraction of muscles of back of neck, throwing the head far back; nape of the neck tender to the touch.

Applied wet cups to nape of neck and a mustard plaster over entire spinal column, and gave calomel gr. ij. and ipecac. gr. ½, every two hours. His condition continued about the same until Monday, Feb. 2d, when he began to sink, and died Tuesday, Feb. 3d, at 6, A.M.

Post-mortem exhibited extensive engorgement of bloodvessels of the brain, and a deposit of lymph over upper surface of hemisphere of cerebrum and cerebellum. Some effusion in the ventricles—thoracic and abdominal viscera healthy.

Case XV.—H. G. L., a private, aged 21 years, admitted Feb. 2d. In perfect health until this morning, when he complained of chilliness, and was soon after violently delirious. Brought into the Hospital at once. Pulse 85, full. Skin moist, and tongue clean and moist.

Applied cups to nape of neck and mustard plaster to spine and extremities, and gave quinine gr. iij., and cal. gr. ij., every three hours; two comp. cath. pills at bedtime.

Feb. 3d.—No change. Continue medicine.

4th.—Pulse 90; other symptoms the same. Stop quinine and give calomel gr. ij. and ipecac. gr. ss. every two hours.

5th.—Decided opisthotonos; head at right angles to body. Continue medicine: applied ice to head, with hair closely cropped, and cups to back of neck.

6th.—Ice apparently not comfortable to the patient—discontinue its application. Pulse 120 and feeble. Continue medicine, and give whiskey ℥ i. in ℥ iv. of milk every three hours.

There was no permanent improvement in this patient's condition; pulse continued quick and feeble, mind wandering—frequently dwelling upon several subjects. The rigidity of the muscles of the neck relaxed about the end of the second week, for a day or two, but gradually returned. He died Feb. 24th.

Post-mortem.—Sinuses filled with black blood, which poured forth freely. More diffused redness of the pia mater of cerebrum and cerebellum than in any case examined. Three ounces of serum in the ventricles: medulla oblongata covered with deposit of yellowish lymph (?) two lines in thickness; some softening of the substance of the brain: effusion of yellowish serum in sheath of spinal cord, and the cord completely enveloped in a deposit (one-fourth of an inch thick), similar in substance to that upon the medulla oblongata.

Case XVI.—J. D. M., a private, admitted Feb. 4th, was taken sick the day previous. When admitted was violently delirious—pulse 80, feeble. Applied cups to neck, mustard to spine, and turpentine enema; and gave cal. gr. ij., and ipecac. gr. ss., every two hours. He died early in the morning of Feb. 6th, without any amelioration of symptoms.

Post-mortem showed injection of vessels of pia mater, deposit of lymph over sulci of hemispheres and over medulla oblongata and pons varolii. Congestion of pia mater of spinal cord, with some effusion in sheath near lower dorsal vertebræ.

Case XVII.—E. H. B., corporal, aged 23 years, was taken sick early in the morning of Feb. 11th; was admitted into Hospital in the evening. Pulse 106; respiration hurried; pupils natural; tongue dryish; great headache; skin moist.

Applied cups to back of neck, mustard plaster over spine, and turpentine enema. Gave calomel gr. v. At 11, P.M., quinine gr. ii. and cal. gr. v. were given.

Feb. 12th, 4, A.M.—Condition the same. Repeat the quinine and calomel. 9, A.M., pulse 96; tongue furred white in centre, with brownish streaks upon sides: face and skin moist. Ordered 6 grs. quinine to be given at once, and gr. ij. of cal. and one-fourth of a gr. of ipecac. every two hours. 6, P.M.—Pulse 106; skin moist; bowels freely opened. Ordered two grs. quinine at 9, P.M., and 6, A.M., to-morrow. Omit the calomel and ipecac. 8, P.M.—Pulse 90, variable; mind very confused.

Feb. 14th, 9, A.M.—Pulse 80; tongue dry and brown; pupils contracted; conjunctivæ injected. Blister to nape of neck. Continue medicine. 6, P.M.—No change.

15th.—Pulse 130, feeble; perspiring freely; low muttering delirium. Died at 10, P.M.

16th.—*Post-mortem.* All the sinuses gorged with black blood; pia mater highly injected; one ounce of serum in lateral ventricles; deposit of lymph over entire surface of cerebrum, cerebellum, medulla oblongata and spinal cord; purulent serum in sheath of cord; thoracic and abdominal viscera healthy.

Case XVIII.—A. A. D., corporal, aged 19 years, was taken sick with headache and chilliness, the evening of Feb. 10th; admitted into Hospital Feb. 11th, violently delirious. Pulse 90, and feeble; countenance pale; pupils contracted; skin moist; tongue furred and moist. Cups to back of neck; mustard to spine; turpentine enema. Gave whiskey ℥ ss. in milk, *pro re nata,* and five grs. calomel. 11, P.M., gave quinine gr. ii., and cal. gr. v.

Feb. 12th, 4, A.M.—Repeat calomel and quinine. 9, A.M.—Pulse 104, stronger; bowels well opened; skin moist; eyes natural; tongue dry in centre; headache. Ordered six grains of quinine to be given immediately; and cal. gr. ii., ipecac. one-fourth gr., every two hours. 6, P.M.—Pulse 90, stronger. Quinine gr. vi., at 9 o'clock, P.M., and 6, A.M. to-morrow. At midnight, very restless and violent. Gave one drachm sol. morph.

13th.—Pulse 88; continue medicine.

14th.—Pulse 96; very restless and violent; tongue swollen and dry; throat slightly reddened; pupils contracted. Ordered cups to back of neck, to be followed by blister. 6, P.M.—Pulse 100. No change in symptoms.

15th and 16th.—Pulse 120, feeble; mind very dull; pupils dilated. Half ounce whiskey in milk every three hours.

17th.—The patient died.

18th.—*Post-mortem.* Sinuses of brain gorged with blood; pia mater uniformly injected; the usual deposit of yellowish lymph over cerebrum, cerebellum, pons varolii and medulla oblongata, and around spinal cord; effusion of serum in ventricles, with some pus; yellowish fluid in sheath of cord.

Case XIX.—C. H., private, aged 18 years, was taken sick the morning of Feb. 17th, and admitted into the Hospital at 6, P.M., the same day. Pulse 90, and full; perfectly unconscious, very restless, constantly throwing himself about, requiring three men to hold him in bed; no moaning or utterance of any kind; skin natural; pupils natural. Bled him 24 ounces; blood very black; pulse became stronger under the bleeding—no symptoms of fainting. Became quiet twenty minutes, whent he jactitations became as violent as before. Gave turpentine enema and opii et camph. aa gr. ii. and cal. v., which was immediately rejected. At 8 o'clock, repeated the powder, when it was retained. Very violent muscular actions; pulse 86, and strong. The bandages became loosened, and permitted 16 ounces of blood to flow, the patient being held upright in bed. No evidence of syncope, no lessening of muscular action. Ordered two grains of calomel every two hours, and one grain of opium at 11 o'clock and 2 o'clock, if not quiet.

Feb. 18th, 8, A.M.—Same excitement continued all the past night. Pulse 90, and feeble. In the afternoon his strength declined, and at 8, P.M. he died, thirty-six hours after first appearance of disease.

Post-mortem.—All the bloodvessels of the brain highly injected; abnormal adhesion of dura mater to skull along longitudinal sinus; a cloudiness of entire surface of cerebrum and medulla oblongata; one ounce of effused serum in ventricles; choroid plexus very much injected; pia mater of spinal canal very much injected; turbid serum in lower part of canal, and evidences of inflammatory action along entire cord.

ON THE TREATMENT OF PLEURISY AND ENDOCARDITIS BY IODURATED FRICTIONS.

By Prof. Delioux.

All those who have traced the progress and watched the tendencies of pleurisy know with what obstinacy the plastic exudations produced by the inflammatory process often persist. The pleuritic false membranes are not in general liable to a spontaneous and speedy resorption: by their mere presence they interfere with the normal functions of the organ in the interior of which they are formed, and secondarily with the functions of the lung which depend in part on the integrity of the pleura. By multiplying the surfaces of exhalation they are a frequent cause of those secondary effusions which complicate pleurisies which were originally dry: finally, they are converted into adhesions, which at the end of a certain time are organized and become irremediable. It is, then, of the greatest importance to disembarrass the patients as soon as possible of intra-pleural false membranes; but their disappearance is not always readily brought about. Amongst the therapeutic means employed with this intention successive blisters present undoubted advantages, but when they fail they must be replaced by other remedies. M. Delioux has then recourse to topical applications of iodine, and they have been attended with a success which he thinks worthy of being recorded.

He employed in the first place tincture of iodine, but in the majority of cases it seemed insufficient. He then tried iodurated pomades, and they proved much more efficacious. In the circumstances under consideration, the "hydriodated pomade" of the pharmacopœia, which contains one eighth part of the iodide of potassium, is not active enough: accordingly, in the first place, he orders the addition of fifteen grains to the ounce. If the desired effect is not produced, he increases the quantity both of iodine and of iodide of potassium; and the formula which he in general finds most useful is the following:—

Iodine, half a drachm; iodide of potassium, two drachms; axunge, an ounce. This combination of iodine and iodide of potassium is very active; it speedily irritates the skin, and for this reason must be employed with some caution, especially in the case of those whose skin is susceptible and delicate; but it leads to the introduction of appreciable quantities of iodine into the system more certainly than any other topical application of iodine. In order, however, to obtain this desirable result, on which the efficacy of the treatment chiefly depends, two rules must be attended to in practising the frictions: 1st, To clean the skin perfectly by a preceding friction, in order to remove everything which could prevent the absorption of the drug; 2d, To rub strongly, during at least five minutes, in order, as it were, to force the door, somewhat difficult to open, of cutaneous absorption. The frictions ought to be made around all the surface corresponding to the affected portion, indeed exceeding its limits. Two frictions, one in the morning, another in the evening, suffice. Over the layer of the iodurated ointment, left after the friction, a sheet of cotton wadding is applied, and over this a piece of oiled silk; and the whole is kept in position by a bandage round the body. This mode of dressing has the double advantage of preventing the bedclothes and the patient's linen from being marked by the almost indelible stains of the iodine, as well as of favoring the absorption of the remedy. When the frictions sensibly irritate the skin, they are to be suspended during the time necessary for the subsidence of the irritation, and they are resumed as soon as possible, leaving as few intervals as may be in a treatment the success of which is much favored by its continuousness.

M. Delioux has met with twenty cases where this mode of treatment has triumphed over intra-pleural exudations, some of which succeeded acute pleurisies, the others, in smaller numbers, having existed for a greater or less period of time, and constituting chronic exudative pleurisy. The treatment has lasted from fifteen days to two months: fifteen to twenty days have generally been sufficient to obtain the absorption of false membranes determined by an acute pleurisy. The most tedious case was one where the treatment extended over two months, where the patient had had an inflammation of both pleuræ, and where there was loud and extensive pleuritic friction, but which disappeared completely, leaving the membranes perfectly free. The action of the frictions was followed day by day by auscultating the patients. The diminution, and finally the complete disappearance of the rubbing sound, could thus be distinctly traced.

M. Delioux has applied the same treatment to some cases of pericarditis, but without obtaining any decisive results. He thinks, however, that pericardial false membranes, when they are not extensive, and are situated near the apex of the heart, may be efficaciously treated by the same means. He has, however, had every reason to be satisfied with the results of this treatment in the case of endocarditis following articular rheumatism. In two cases, among others, perseveringly treated by iodurated frictions over the pericardial region, the blowing murmur completely disappeared, and apparently there was resolution of the endocardial lesion which had given rise to it. This result is important when we consider the difficulty which is often found in effacing every trace of the secondary lesions occasioned by rheumatic endocarditis. In this case, no doubt, blisters are very useful, as well as in pleurisy; but when they do not succeed, M. Delioux recommends to have recourse to iodurated frictions, which appear to favor resolution.

M. Delioux endeavored to determine whether the internal use of iodine in exudative pleurisy and endocarditis would increase the effect of the topical applications. It appeared to him, at least in the first of these conditions, that the internal administration of iodide of potassium was of use; the resolution of the pleuritic false membranes took place with no greater rapidity than in the case of those submitted simply to the topical applications. It appears, then, that in certain circumstances medicines develop greater activity of action when they arrive directly at the affected organs by the local circulation. The topical employment of iodurated applications in the case of inflammations of the serous membranes situated near the periphery of the body, is a practical consequence of this peculiarity of absorption.—*Edinburgh Med. Journal*, from *Bulletin Général de Thérapeutique*, and *Gaz. Médicale de Paris*, 17th January, 1863.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

MARCH 9th.—*Sudden Death from fatty Disease of the Heart.*—Dr. **GAY** reported the following case:—

A man, 30 years old, of intemperate habits, sprained his knee, two weeks ago, by slipping in the street. There was pain and some swelling, for which Dr. Gay ordered leeches and a poultice. The patient seemed to be doing well, and Dr. Gay saw him for the last time on the 6th inst. This morning he was sent for at 5 o'clock, and found the patient dead. He had been as well as usual the previous evening, but at midnight he was attacked with distress in breathing and a feeling of choking. There were no chills, and no cramps. Dr. Gay learned that since his accident he had drunk a bottle of whiskey daily.

Dr. ELLIS showed the heart of this patient. The pericardium contained from one to two drachms of turbid serum. An irregular, thin, white patch was seen upon the anterior surface of the right ventricle, but nothing which indicated recent disease. The heart contained a large quantity of liquid blood and some small coagula. The adipose tissue of the wall of the right ventricle had so encroached upon the muscular substance that only a very thin layer of the latter remained. On making incision in various parts of the wall, which retained their usual thickness, many points were found to be occupied by adipose tissue. A few isolated points of the same character also existed in the walls of the left ventricle. The liver was quite large, of a light red color, very friable, and contained a very large amount of fat. The kidneys were unusually vascular, the Malpighian bodies being very distinct. To the naked eye the cortical substance appeared sufficiently healthy. On microscopic examination, the tubuli were found so filled with granular matter that no appearance of a canal remained. The lungs, with the exception of some ecchymosis beneath the pleura, were healthy. Other organs normal.

Dr. Cabot said he was called in the night to an intemperate married woman, 24 years of age, who, while conversing with her husband, suddenly became silent and was found to be unconscious. She never revived, and was dead when Dr Cabot reached the house. She had just recovered from an attack of pneumonia.

Dr. Ellis, who made the autopsy, said, the posterior part of the right lung was congested and friable. The adipose tissue of the right ventricle had encroached upon the muscular substance in the same way as in the other case, and the fibrillæ also contained many fat globules. The liver and kidneys resembled so closely those previously described, that a repetition is unnecessary.

These cases, which resemble each other so closely, are interesting on account of the age of the patients, both being younger than those who usually die with fatty degeneration of the heart. Both were intemperate, and had the same disease of the liver and kidneys.

Dr. Hodges said he had been called, a few nights ago, to see a gentleman, 70 years old, who was temperate, regular in his habits, active and stout, and in perfect health, except some slight dyspeptic symptoms and some irritability of the bladder, probably from an enlargement of the prostate gland, which obliged him to pass water two or three times during the night. On this occasion he rose, as usual, took the vessel, but immediately fainted, and fell insensible on the floor. He was taken up and placed in bed, where he soon revived, and the next morning he was as well as ever. The same circumstance had occurred once before, a few years ago. Probably this was an instance of fatty heart; the organ not having sufficient force to propel the blood to the brain when the patient suddenly rose from the recumbent position and stood upright, syncope followed. Had not assistance been at hand, the man might have died.

March 9th.—*Tumor of the Parotid Gland.*—Dr. H. J. Bigelow had requested Dr. Jackson to exhibit a tumor removed from the parotid gland. The patient was a middle-aged woman, and the tumor of half a dozen years' growth. It had rapidly augmented of late, being now three or four inches in diameter. Dr. B. characterized it as a type species of a benign glandular tumor which had undergone cartilaginous transformation. The usual benign parotid tumor, imbedded in the gland from which it is easily dissected, is characterized by its slow growth, its salient outline and its knobbed contour. It often shows, on section, little cartilaginous spheres, like grains of sago cut across.

Dr. B. had, however, removed a number of these tumors, which had, like the present one, almost wholly undergone the enchondromatous change, being then soft, jelly-like and slimy on section; friable, easily tearing into lobules, like sago or tapioca in color, and so perishable that a day or two suffices for it to deliquesce if exposed to the air. The microscope shows various stages of enchondroma; a part hard, with well-defined cartilage corpuscles; other parts soft and jelly-like, with long filaments, and isolated, irregular corpuscles at intervals.

March 9th.—*Sudden Death of an Infant without known Cause.*—Dr. Cheever reported the following case:—

An infant, 10 weeks old, apparently in perfect health, suddenly died while sleeping, and after having been asleep one and a half hours. There had been no struggle, and the face was not livid. On *post-mortem* examination, Dr. C. found no morbid appearances, except some serous effusion in the ventricles and at the base of the brain: the latter organ was also somewhat congested. The thoracic organs were all healthy, and the larynx free of obstruction. An infant cousin of the child had died in a precisely similar manner. Dr. C. was unable to account for the death, unless the effusion might possibly have been accumulating insidiously for some time until it became sufficient to destroy life.

March 9th.—*Median Fissure of the Lip.*—Dr. Jeffries Wyman showed a cast of the head of an anencephalous fœtus. The appearances presented by the cranium are such as are often met with in anencephalous fœtuses, and in addition, the following appearances were noticed. The eyes were separated only by a very slight interval, so that the inner angles nearly touched. The lids having been arrested in an early stage of development, formed merely a narrow border, incapable of covering the globe. The nostrils were imperforate, though the nasal cavities were normally developed. The mouth was of a triangular shape, with a truncated apex: the upper lip consists of three portions, the right and left converging upwards, and a transverse portion above connecting them. In these particulars the fissure is unlike a lateral one, where the two sides of it converge to a point. There was a deep notch in the region of the incisive teeth, but no fissure in the roof of the mouth.

The inner orbitar processes of the frontal bone had an unusual length; the nasal bones were wanting, and the ascending portions of the upper jaw met on the median line, and thus closing the nasal cavities above. The alveolar border of the upper jaw contained on each side four cavities for teeth, viz., two for molars, one for a canine and one for a lateral incisor, in all eight. The middle incisors were wanting, and their places occupied by the median notch. Behind each of the incisive alveoli are traces of the intermaxillary suture, but that on the right was most distinct.

A fissure in the upper lip, on the middle line, is quite rare. Leuckart, Vrolik and Von Ammon have each described one. The existence of it is admitted by Rokitansky, Meckel and others. Leuckart and Vrolik believe it to be dependent upon, and always co-existing with, a defect of the intermaxillary bone, which opinion is supported by the specimen here described, where the bone in question is partly wanting. —(*See Vrolik Tabulæ ad Illustrandam Embryogenesin.*—Amst., 1849. Tab. xxxiii., Fig. 7.)

In the close approximation of the eyes, in the absence of nasal bones, and in the partial deficiency of the intermaxillary bone, this specimen shows a tendency to cyclopism. In cyclopian monsters, in addition to the fusion of eyes and closure of nostrils, there is always absence of the intermaxillary.

The malformation here noticed is not, properly speaking, a fissure in the same sense that the lateral fissures are. There is naturally no fissure on the median line, in any stage of development, since the intermaxillary bud occupies the middle and is single, and never subdivided into two portions. If, however, the intermaxillary bud is not developed, the maxillary buds, as they push towards the middle, if they do not reach it, will leave an unoccupied space between them, which will account for the so-called fissure.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, APRIL 16, 1863.

IODIDE OF POTASSIUM AS A REMEDY FOR ANEURISM.—The hopeless nature of internal aneurisms is such that any remedy which holds out the least hope of benefit will be eagerly taken up by the medical profession; and it is with this feeling that we write these lines on the use of iodide of potassium in such cases. Several years since, unless our memory deceives us, this remedy was spoken of by Velpeau as one in which he had much confidence in the treatment of aneurism. The subject was not spoken of at length, nothing was said of its *modus operandi*, and we have not seen it referred to again, or any cases in which it had been used reported, until our attention was attracted, a few days since, by an article upon it in the *Bulletin Géneral de Thérapeutique Médicale et Chirurgicale*, by Dr. Chuckerbutty, physician of the College of Calcutta. This gentleman seems to have been led to employ it by accident, and makes no mention of ever having seen it recommended by any one else. He gives a report of three cases of aortic aneurism treated by it with great benefit.

In the first of these cases the patient was harassed by a very obstinate cough, for which many remedies were tried without relief. At last iodide of potassium was administered, and from that moment the urgent symptoms of the aneurism were alleviated. The patient died a few months after, of an acute pulmonary affection, giving an opportunity for a *post-mortem* examination, when the aneurismal sac was found to be filled with a firm deposit of fibrin in the centre of which was a small canal for the passage of the blood. Dr. Chuckerbutty subsequently tried the remedy in two other bad cases with decided benefit; they were both fatal, however, being both very severe cases when the treatment was commenced. Of one of these he says:—

"Digitalis and hydrocyanic acid brought no relief. The iodide of potassium was prescribed, and from that moment there was a marked relief and improvement. The impulse became more feeble, the sounds more obscure, the thrill less; the swelling disappeared, the dilatation of the veins diminished, the dark color of the skin vanished, the pains of the head and arm, the dyspnœa, the dysphagia, the hoarseness of the voice, gradually improved. Finding himself much better, Collyer insisted on going out, in spite of my remonstrances, to pass the holidays of Nöel with his family. He returned the following April with all his symptoms much aggravated. Especially had the tumor of the sub-clavicular region become much more voluminous and the pulsations much stronger. This time the iodide of potassium was ineffectual, and death put an end to his sufferings."

Further on in the article, the author says:—

"Besides the preceding cases, I have had occasion to employ this drug in many other patients, of whom there is one under treatment in the wards at the present time, and always with the same favorable result. In this case, where there is unmistakable aneurism of the ascending aorta, improvement did not begin until the use of the iodide of potassium was commenced; and now his thoracic pains are relieved, the tumor has diminished, the impulse is less hard, the abnormal *bruit* is more feeble, more dull, the dyspnœa has disappeared, the appetite is good, and the different functions are in a satisfactory condition."

The author sums up his remarks with the following conclusion:—

"It seems to result from these facts which I have related, that we have the consolidation of the aneurismal sac as the effect of the administration of the iodide of potassium, a result contrary to all our preconceived ideas of its action. Now as this is precisely the end for which we are striving in our treatment of intra-thoracic aneurisms, it will be admitted without hesitation, that if this remedy should always act in this way, it becomes an agent of immense value to us.

"It will not be overlooked also, that these experiments were tried in cases of extreme gravity, as well from their situation as on account of the advanced stage of the disease at which the treatment was begun. It is greatly to be desired, therefore, that they may be repeated in less severe cases, where, in consequence, the chances of success would be much greater. For the rest, it is in aneurisms of the extremities that we can best judge of the value of this treatment, since the phenomena are directly under the eye of the observer. Nothing prevents the combination of the two methods of treatment, the internal and the external. It would be of the greatest interest to watch the operation of the iodide of potassium in doing the work of facilitating and preparing the phenomenon of the coagulation of the blood contained in the aneurismal sac, to expedite the result of digital or alternating compression. If success should follow, as it is perhaps permitted us to hope, there would be good reason for adopting this method of treatment of aneurism of the great arterial trunks, and even of intra-thoracic aneurisms."

Diphtheria. *Messrs. Editors,*—As diphtheria is prevalent throughout the country at the present time, and some are giving their experience with its variety of symptoms and treatment, I thought mine might be added to help make up the experience of all in that fatal disease. Although one succeeds better than another with the same remedy, I have tried about all that I have seen recommended, and have settled on the following treatment for the present, and I am having better success than with any other (nitrate of silver not excepted). I think more can be done with constitutional treatment than many will admit. From what I have seen of the disease and its treatment, I would rely as much on that as on the local—viz., brandy and quinine, from one to two grains of quinine and two to four drachms of brandy, with as much simple syrup once in two hours as the case demands. Previously to giving the above, a cathartic is generally advisable. External local treatment—salt pork, with capsicum, from ear to ear, also spts. terebinth.; gargles—muriatic acid one drachm, simple syrup two to four ounces, or chlorate of potash three drachms, simple syrup four ounces; and also a strong solution of chloride of sodium, which will cause a copious secretion in the mouth and throat, instead of drying it up, and which will relieve some of the most distressing symptoms and assist in throwing off the membrane. By the way, it is one of our best remedies for the sore throat that attends scarlet fever.

You will perceive that I use sugar in my prescriptions. I do so in all cases of sore throat, of whatever nature. I give it freely to children. I think I have seen great benefit from it in many cases. I have been extremely fortunate for a few years in having mild cases under treatment, or I should not have been so successful. I have not lost one patient, where I used to lose many with nitrate of silver at sixty grains to the ounce. THOS. H. CURRIE, M.D.

Webster, N. H., March 23d, 1863.

WARLIKE ASPECT OF MEDICINE.—The medical aspect of campaigning has assumed nearly its due importance in the American war. Enormous efforts have been made by the civil population to supplement the short-comings of the military departments, and by the aid of many hundred thousands of dollars subscribed by the energetic action of many scores of local and central committees, which the Government felt itself obliged to endow with official powers, the strain on the department was lightened. But the primary importance of sanitary precautions and the vast influence of sickness upon the efficiency of an army, were proved several times on an awful scale in the armies of the Potomac. At such times the army doctor rises into the position of dignity with which his high functions are properly invested: but in times of peace the military cliques who administer affairs, and who regard the medical officer with invincible *morgue*, monopolize every privilege for themselves. The contrast in times of peace and of war is very striking. When at the period of the Chinese war, and of the Canadian expedition, actual work was to be done, the public journals told, with interest which bespoke the importance of the matter, how admirable were the precautions which had been taken by the medical officers to ensure the health of the troops, and how greatly the efficiency of those expeditionary corps had been increased, compared with numerical returns of sickness to strength from former expeditions, by the excellent manner in which the medical officers had used their increased powers, and the zeal with which they had been animated by the recognition of their valuable services conveyed in the late Warrant. At that time the Military Medical Department had fallen into decay and disrepute in America. But now, when peace reigns here, and war rages across the Atlantic, the cases are reversed. While the Duke of Cambridge snubs the medical officers who seek redress for avowed grievances, General Butler, at New Orleans, in the last act of his career, and solemn justification of his deeds, refers to the sanitary precautions by which an army has been maintained in comparative health amidst malaria-swamps, and only saved from pestilence by wise medical regulations. The late Lord Herbert was the greatest benefactor of the army and medical service. He saw the destruction which a neglect of that service had entailed in the Crimea, and the impossibility of properly carrying on the department and of procuring efficient officers unless they were treated with courtesy and allowed due privileges. His death has been the signal for the revocation of his acts. On presiding at the meeting in honor of that nobleman's memory, the Duke of Cambridge omitted all reference to the great labors of the medical reformers, to whose principles and arguments Lord Herbert was able by his position to give the shape of action. That memorial has become a mere War-office job. Although avowedly for the encouragement of medical studies, only one medical officer, the distinguished head of the department, has been put on the list of the committee, while hundreds of military names crowded the list. We hear nothing yet of what has been done: and even in this purely professional matter the profession has been ignored. The difference between war and peace is great to all men; but to none more so than to the army medical officers.

The experience of the American war has confirmed that of nearly all campaigns, that soldiers are in far greater danger from the diseases incident to camp life than from the weapons of the enemy. There are many surprising facts illustrating this in the history of the English and French armies. The 92d English regiment lost more officers and men in four months from the climate of Jamaica than by the enemy in active war of twenty-two years, in which it was twenty six times in battle. The French sent 309,268 officers and men to the Crimean war, of whom 200,000 were under medical treatment, 50,000 being for wounds, and 150,000 for diseases. Amongst these soldiers there were 69,229 deaths, of whom only 7500 were killed on the field of battle or not afterwards heard of, being eight deaths from other causes to one in battle. It is the deliberate opinion of Scrive, an intelligent investigator, that the losses occasioned by the most murderous battles do not equal one fourth of the total losses to which an army is ordinarily subjected.—*London Lancet.*

MEDICAL COMMENCEMENTS.

Bellevue College Hospital.—The second annual commencement of this College was held recently in New York. Prof. Taylor administered the Hippocratic oath to the graduating class, 42 in number, who also received their degrees.

The New York Medical College.—The thirteenth annual commencement was celebrated on the 11th ult. Prof. Rafael, Dean of the Faculty, administered the Hippocratic oath to eleven graduates, who received the degree of M D. from the President. Prof. Cox delivered the valedictory address, and Prof. J. V. C. Smith awarded the Van Arcken prizes.

The New York Ophthalmic School and Hospital.—The eleventh anniversary of this Institution was held on the 24th ult. Diplomas were presented by Dr. Stephenson to 16 graduates, who were addressed by Dr. M. P. Stephenson, one of the attending surgeons. The valedictory address on the part of the class was by Dr. A. E Jenner, and the closing address by Dr. Garrish.

The Wood Prizes.—The anatomical preparations submitted for these prizes were examined on the 9th ult. by the Professors of Surgery and Anatomy of the several Medical Colleges in New York. The first prize of $50 was awarded to Garabed Vartanyan, of Syria, Turkey, student in the University Medical College, for a beautiful dissection of the head and neck, showing the branches of the internal maxillary and all the profound arteries of the neck, as well as the superficial. The second prize was not awarded.

Medical Department of the University of Buffalo, N. Y.—The annual commencement exercises recently took place, and 24 gentlemen received the degree of M D. The valedictory address was by Mr. Benj. B Ross, and the charge to the graduates was delivered by Prof. Rochester. A supper was afterwards given by the Faculty at the American Hotel. A handsome set of instruments was presented to Prof.

Sandford Eastman, Dean of the Faculty, by his fellow-members of the Faculty, as a testimonial of their appreciation of his services in advancing the welfare of the school. Prof. Rochester's address is printed in full in the *Buffalo Medical Journal.* It is entitled the "Army Surgeon," and contains many interesting and instructive descriptions of the sanguinary scenes which many of our surgeons have been called to pass through.

Medical Department of the University of Pennsylvania.—At the annual commencement on the 14th of March last, the degree of M.D. was conferred on 78 candidates. The matriculants during the session numbered 319.

Jefferson Medical College, Philadelphia.—At the annual commencement held on the 10th of March last, the degree of M.D. was conferred on 82 candidates. The matriculants during the session were 275.

University of Michigan.—At the recent commencement 39 gentlemen received the degree of M.D., the matriculants numbering 250.

The number of graduates in the *Cincinnati College of Medicine and Surgery,* at the late commencement, was 25 ; *Medical College of Ohio,* 27 ; *Long Island College Hospital,* 11 ; *Starling Medical College,* of Columbus, Ohio, 36.

A subscriber to the Journal, in Vermont, in remitting his subscription, says—"I have taken the Journal more than twenty years, and *every* number has come to hand."

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, April 11th, 1863.

DEATHS.

	Males.	*Females.*	*Total*
Deaths during the week - - - - - - - - -	38	32	70
Ave. mortality of corresponding weeks for ten years, 1853—1863,	36.8	37.3	74.1
Average corrected to increased population - - - - -	00	00	81.69
Death of persons above 90 - - - - - - - - -	0	1	1

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
9	4	3	7	1	0	0	0

Books and Pamphlets Received.—Brande and Taylor's Chemistry. Philadelphia, Blanchard & Lea. 1863. (From the publishers.)—Argument of Thomas C. Amory against the Metropolitan Police Bill.

Journals Received.—The American Journal of the Medical Sciences. April, 1863.—The Dental Cosmos. April, 1863.—American Medical Times. Vol. vi., No. xv.—Journal de Medecine de Bordeaux. March, 1863.

Died,—At Derry, N. H., Thursday, 9th inst., Dr. C. A. Davis, for many years the Superintendent of the U. S. Marine Hospital at Chelsea, until superseded by Dr. Graves, the present incumbent. He spent some time in Virginia last year during the Peninsular campaign, as a volunteer surgeon, returning in failing health, from which he never recovered.

Deaths in Boston for the week ending Saturday noon, April 11th, 70. Males, 38—Females, 32.—Accident, 3—aneurism (of the aorta), 1—apoplexy, 1—asthma, 1—inflammation of the bowels, 2—inflammation of the brain, 1—bronchitis, 1—consumption, 9—convulsions, 3—croup, 4—debility, 1—diarrhœa, 2—dropsy of the brain, 7—dyspepsia, 1—erysipelas, 1—scarlet fever, 3—gun-shot wound, 1—disease of the heart, 1—homicide, 1—intemperance, 1—disease of the liver, 1—congestion of the lungs, 4—disease of the lungs, 1—inflammation of the lungs, 7—marasmus, 1—malignant pustule, 1—old age, 1—puerperal disease, 2—rheumatism, 1—smallpox, 1—unknown, 4—whooping cough, 1.

Under 5 years of age, 31—between 5 and 20 years, 9—between 20 and 40 years, 15—between 40 and 60 years, 10—above 60 years, 5. Born in the United States, 50—Ireland, 16—other places, 4.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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THE SENSES OF SMELL AND TASTE.

BY MR. NORTON FOLSOM. AN ESSAY TO WHICH THE PRIZE OF THE BOYLSTON MEDICAL SOCIETY WAS AWARDED.

[Communicated for the Boston Medical and Surgical Journal.]

THESE senses are so mingled in action, that their separate offices are at first difficult to determine; and even the exact locality of the perceptions which constitute the two senses can hardly be pointed out without careful observation. We instinctively know that we smell odoriferous substances when they are presented to the nose, and that we taste sapid substances in the mouth, but more than this we can only derive from experiment.

The anatomy of the mouth and nose is briefly as follows: The mouth is an oblong cavity, with an arched roof, lined with mucous membrane, and opening into the pharynx through the arches of the palate. It contains the tongue, which is a muscular organ, capable of applying itself to any part of the mouth, and covered also with mucous membrane, which presents, on the dorsal aspect, three kinds of papillæ: first, the circumvallate, seven to fifteen in number, about one fourth of an inch in diameter, soft, and arranged in the form of the letter V at the root of the organ; second, the fungiform, soft, but much smaller than the circumvallate, distributed irregularly over the dorsum, but much more numerous at the tip and edges; and third, the filiform, very minute, and quite hard and stiff, covering the whole upper surface, between the other papillæ. The epithelium of the circumvallate and fungiform varieties is very thin, that of the filiform quite thick and tough.

The hard palate is the roof the mouth. Attached to its posterior border, and hanging like a veil or curtain between the mouth and pharynx, is the soft palate, which is muscular, and capable of being applied to the posterior wall of the pharynx, so as to entirely separate the cavities of the nose and the mouth.

The pharynx is the upper extremity of the œsophagus, and opens above into the posterior nares. These parts are all covered with mucous membrane, continuous with that of the mouth, and, like it, consisting of the laminated pavement-epithelium.

The nose consists of two pyramidal cavities, opening externally in front, and into the pharynx behind. They are entirely separated by a cartilaginous septum. Each cavity is partially divided by three spongy bones into three passages, called respectively the superior, middle, and inferior meatus. All these parts are covered with mucous membrane, which differs in character, however, in different localities. As far down as the middle spongy bone, the epithelium is of the "squamose cylinder"[*] variety, not ciliated, and the membrane is thick and brownish. Below this, and as far posteriorly as the orifice of the Eustachian tube, the epithelium is ciliated, exactly like that of the larynx and trachea, from which we might infer that this lower portion of the cavity is associated with the respiratory function rather than with special sensation, as is indeed the case.

The nearly-closed cavities communicating with the nostrils, namely, the ethmoidal cells, the sphenoidal and frontal sinuses, and the antrum of Highmore, have no connection with the sense of smell, as has been repeatedly demonstrated by experiment in regard to the two last mentioned.[†]

The nerves distributed to these organs are as follows:

To the nose,
1. The olfactory.
2. Branches of the first and second divisions of the trifacial.
3. Branches from the spheno-palatine ganglion of the sympathetic.

To the mouth,
1. Branches of the third division of the trifacial.
2. The glosso-pharyngeal.
3. The hypo-glossal.
4. Branches from the spheno-palatine and otic ganglions.

The olfactory nerves, within the cranium, arise from the base of the brain, and rest upon the cribriform plate of the ethmoid bone, which is immediately over the superior spongy bone. From it arise filaments, which descend upon the septum and upon the superior and middle spongy bones, and cannot be traced farther down than the non-ciliated mucous membrane extends. They differ from ordinary nerve-fibres in wanting the axis-cylinder, and in their gelatinous consistency and gray color. They terminate, according to late investigators, in club-shaped bodies, lying immediately beneath the epithelium, which are presumed to be ganglion-cells, like those which constitute the gray cerebral matter.[‡]

The nasal branches of the first and second divisions of the trifacial supply the mucous membrane of the nose throughout.

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[*] Kölliker. Human Microscopical Anatomy.

[†] J. Müller. Elements of Physiology.

[‡] Oehl, as quoted in the Year Book of the New Sydenham Society for 1859.
Ecker, as quoted by Schroeder Van der Kolk in researches "on the Spinal Cord and Medulla Oblongata."

The spheno-palatine and otic ganglions send branches to the nasal mucous membrane, and also to the muscles of the soft palate.

The branches of the third division of the trifacial supply the mucous membrane of the mouth, and a large trunk called the gustatory nerve is distributed to the anterior two-thirds of the dorsum of the tongue, where its fibres enter the fungiform papillæ.

The glosso-pharyngeal nerve supplies the muscles and mucous membrane of the pharynx and base of the tongue, and a branch passes forward to the circumvallate papillæ, where it forms a considerable plexus in each of them.

The hypo-glossal is distributed exclusively to the muscles of the tongue.

In a morphological point of view, the olfactory apparatus is to be considered as a cerebral ganglion, belonging, with the eye and the ear, to a series of three organs of special sense, which are disposed in the intervals between the four cranial vertebræ. Their nerves differ from ordinary nerves in having ganglion-cells, or gray matter, at their peripheral extremities, namely, the olfactory filaments, the retina, and the cochlear and vestibular branches of the auditory nerve. This view is corroborated by the original development of these nerves or ganglions, which grow out from the cerebral substance, instead of being formed *in situ*, as all other nerves are.

In considering the functions of these various nerves, we may exclude the fibres from the sympathetic (believing them only to govern the nutrition of the parts, and to cause certain involuntary movements of the palate), and the hypo-glossal, which is the motor of the tongue.

When a substance to be tasted is placed in the mouth, we press it with the upper surface of the tongue against the palate, and thus force its particles in every direction. The saliva, poured in by its glands responsive to the stimulus, aids in dissolving and disseminating the particles over the mouth. When the substance reaches the fauces, and as it is swallowed, a current of air escapes from the glottis and carries any volatile portion to the posterior nares, where it is liable to affect the sense of smell. Plainly, therefore, in order to separate the two sensations, we must either shut off the cavity of the nose during the tasting, which can be done by most persons voluntarily by breathing through the mouth and applying the soft palate to the back of the pharynx, or we must interrupt the current of air through the nares, which can be done by holding the nose with the fingers.

We recognize two classes of impressions made by articles of food—one of *savors*, of which salt affords an example; the other of *flavors*, as that of vanilla. Most substances have both properties; thus a strawberry has an acid and a sweet taste, besides its own delicious flavor.

The distinction between these two classes has not, indeed, been fully made by physiologists until of late; and still less has the fact been recognized, that *all flavors are perceived by the organ of smell only*, reducing the number of impressions which the organ of *taste* is capable of receiving to four only, viz., Sweet, Sour, Salt, and Bitter. This can, however, be easily and certainly demonstrated. Let the nose be closed by the fingers, or let the posterior nares be shut off by the soft palate, and a solution of vanilla be taken into the mouth and swallowed. It cannot be distinguished from water. Soup, nutmeg, cheese, pineapple, and assafœtida are alike entirely *flavorless* under similar conditions, though the *ordinary sensibility* of the mucous membrane, and the perception of the four savors above mentioned, may enable us to apprehend certain *other* qualities which distinguish these substances. The common practice of holding a child's nose while it swallows disagreeable medicine, has its origin in this peculiar relation of these two senses.

We have now to consider the exact locality of the sensations produced by these four classes of stimuli. Experiments have been tried by various physiologists with entirely different results, which may be attributed to want of care and to not recognizing the fact that all *flavors* should be excluded from the investigation. All agree, however, in this—that, to be tasted, a substance must be brought to the sensitive part *in solution*, inasmuch as insoluble substances have no taste.

In the experiments performed by the writer, solutions of white sugar, tartaric acid, common salt, and sulphate of quinine, were carefully applied to various parts of the mouth and fauces by means of a camel's-hair pencil, pains being taken that no excess of fluid should be used, which might diffuse itself over other parts than that directly under observation. The following results were uniformly obtained on six different individuals, they all being unaware of the substances used in each experiment.

1st. The upper surface, tip, and edges of the tongue, as far back as to include the circumvallate papillæ, are the *only* parts concerned in the sense of taste; the hard and soft palate, tonsils, pharynx, lips, gums, and under surface of the tongue being entirely destitute of this sense.

2d. The circumvallate papillæ are far the most sensitive portion of the organ. They perceive, at once, very minute quantities of any one of the four substances used, and are particularly sensitive to bitter. Irritation of these papillæ by pressure, or placing a drop of cold water on them, excites decided sensations of bitterness.

3d. The central portion of the dorsum of the tongue, to within half an inch of the edge, is the least sensitive portion. Substances are distinguished with difficulty, or not at all, when applied to it.

4th. The edges and tip of the tongue are quite sensitive, the edges becoming less so as we come forward. They recognize all the four classes of substances. The tip detects bitter with great difficulty, but is particularly sensitive to sweet. A sweet sensation, sometimes mingled with sour or salt, is produced by gently tapping it with any insipid soft substance.

The tongue possesses *ordinary sensibility* to a marked degree, especially at its tip, and in this way detects the size, shape, and texture of substances. It is in the same way that the qualities of pungency and astringency are perceived, which fact is proved by their being nearly as perceptible to the conjunctiva, or any other mucous membrane possessing ordinary sensibility, as to the mouth. A solution of tannin, applied to the circumvallate papillæ, gives the sensation of extreme bitterness, while at the tip it produces a slight sweetish taste, especially after it has been washed off by the saliva. These sensations are entirely distinct from the puckering, which, as just said, is perceived by other mucous membranes. The application of a solution of potassa gives nearly the same result, proving that there is no such thing as a distinct alkaline taste.

The results of the experiments of the present writer differ from those of a recent authority,* who states that the hard and soft palate possess the sense of taste to a considerable degree. It is difficult to prevent fluids applied to these parts from trickling down upon the tongue; but if this is guarded against, no sensation is produced, even by a strong solution of a sapid substance, except that of stimulation.

These facts make it almost certain that the gustatory branch of the trifacial, through the fungiform, and the anterior branch of the glosso-pharyngeal, through the circumvallate papillæ, share the office of tasting between them. This is also proved by cases where the sense of taste has been lost in the anterior part of the tongue, by the paralysis of the trifacial nerve, while it continued unimpaired at the root.†

We should hardly expect to find this similarity of action between two distinct nerves, especially as the whole of the trifacial, with the exception of the gustatory branch, is a nerve of ordinary sensation. But it is shown by recent microscopic investigation, that the sensitive root of the trifacial nerve receives certain fibres from the root of the glosso-pharyngeal in the substance of the medulla oblongata,‡ and it is at least *possible* that these fibres may enter the lower division, and be distributed with the gustatory branch, thus giving it the power of tasting.

These nerves do not differ in structure from the nerves of ordinary sensation, and yet would seem to perform the office of special sense. But tasting is, as we have seen, a much simpler action than at first appears, and should rather be classed with the functions of hunger, thirst, satiety, nausea, and the distress which is felt impelling us to breathe when respiration is suspended, (functions performed by the pneumogastric,) than with the higher and more complicated special senses. In connection with this, we may notice that, morphologically, the glosso-pharyngeal and pneumogastric belong to the same pair of cranial nerves.

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* [illegible], as quoted in the Year Book of the New Sydenham Society for 1860.

† Todd and Bowman's Physiology.

‡ Schroeder Van der Kolk, in researches "on the Spinal Cord and Medulla Oblongata."—New Sydenham Society. 1859.

Certain substances have been observed to produce sensations, painful or otherwise, when applied to perfectly sound teeth. As it has been ascertained that fluids are readily and rapidly absorbed by the tubules of the dental structure, and conveyed to the pulp cavity,* it is highly probable that the sensation is excited at the latter organ.

The sense of smell is entirely performed by the olfactory nerve. This is proved by the corresponding increase of the relative size of the nerve in those animals which are known to possess a particularly acute power of scent, and also by the fact that in paralysis of the trifacial the sense remains unimpaired. The branches of the trifacial which are distributed to the mucous membrane of the lower and anterior parts of the nasal cavity, endow it with a high degree of *common sensibility*, so as to guard the more delicate part of the organ from injury, by giving warning if we attempt to inhale any irritating vapor. This common sensibility appreciates the pungency of substances in the same way as in the case of any other mucous membrane. Many substances possess pungency beside odor, as ammonia and mustard, for example. These affect the conjunctiva almost as readily as the nose.

The organ of smell is affected by substances only when they are in the form of vapor; hence non-volatile substances have no smell. Vapors reach the organ in two ways. In the first place, a current of air may be drawn, by a forcible inspiration, so as to be directed by the external nose to the upper part of its cavity, and impinge upon the filaments of the olfactory nerve. If this air contains particles of any volatile substance, it gives rise to the sensation which we call *odor*. In the second place, if any volatile substance is taken into the mouth, and carried to the fauces, or swallowed, and a puff of air is allowed to escape from the larynx, it will be directed by the walls of the pharynx, so as to carry the particles of the substance directly to the upper part of the nares, where it produces what we describe as *flavor*. We unconsciously emit this current of air, immediately after swallowing, and when we are trying to taste anything. Thus we see that "scent and flavor are the same impression on the same nerve at the same part."†

Flavors are connected, in a great majority of instances, with food. This is the reason that the smell of roast meat so strongly excites the appetite of a hungry man. The exercise of the sense of taste is simultaneous with that of smell, in the act of eating, which accounts for the difficulty of distinguishing between them.

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* Dr. Miel, a dentist, as quoted by Todd and Bowman.

† Herbert Mayo. The Nervous System and its Functions. 1842.

We can only classify these perceptions so far as to say that they are agreeable or disagreeable. Even this distinction cannot always be made; thus the faint smell of putrid urine closely resembles that of sandal-wood. What is offensive to one person may be pleasant to another. The desire for certain flavors is entirely acquired, and the infant will reject with loathing what may become its favorite food in after life. An agreeable flavor or odor sometimes becomes disagreeable by long continuance.

The odors of substances which are similar in other respects are generally alike, so that we may attempt to classify them according to the sources from which they are derived. The smells of plants are nearly, if not quite all, derived from essential oils. The various ethers have kindred odors.

Substances differ as to the intensity of their odor without reference to their volatility. Thus the smell of musk is more intense than that of ether.

In man, this sense only serves the purpose of giving him pleasure, and guides him to a slight extent in the choice of food; but with the lower animals, it not only becomes necessary in the detection and selection of food, but warns of the approach of friends or enemies, and performs numerous other duties, sometimes attaining a delicacy which renders it nearly equal in rank to sight and hearing. The hunting-dog and the antelope are well-known examples of this. The sexual appetite is frequently excited through this sense.

But in man, this sense is not commonly developed to its fullest possible extent. It is well known that the senses possess a certain sort of compensating power; that is, if one is lost, the others become more acute. The capabilities of this sense in the human being are well exemplified by the case of James Mitchell, who was blind, deaf and dumb from birth, and distinguished between persons principally by smell. It enabled him to detect the entrance of a stranger at once.*

It is recorded of the wine-tasters of Spain, that they can distinguish between five hundred different kinds of wine; and instances are familiar to every one, of the faculty of telling several kinds of wine, or several varieties of the same kind, many times in succession, with the eyes covered. A well-known gentleman of Boston is an example.

The tea-tasters to be found in great commercial cities acquire very nice discriminating powers, frequently determining the investment of large sums of money by merely tasting a specimen of tea.

Persons accustomed to the use of tobacco can at once distinguish the variety brought from Havana, and even, in some instances, the particular plantation from which it comes.

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* Carpenter. Human Physiology.

The French cultivate the olfactory sense to a much greater extent than most other nations, not only in the art of perfumery, but in cookery, which becomes almost a fine art with them; and there seems to be no reason why the imagination should not be reached through this organ as well as through the eye and the ear. The scent of the freshly-opened rose, or the flavor of the strawberry, has as valid a claim to the notice of the poet as the song of the lark, or the beauty of sunset. At all events, much pleasure and practical advantage might be gained by its systematic cultivation, even if we should never rival the powers of "the Monk of Prague, mentioned in the Journal of the Learned of the Year 1684."

"He not only knew different Persons by the Smell, but, what is much more singular, could, we are told, distinguish a chaste Woman, married or unmarried, from one that was not so. This Religious had begun to write a new Treatise on Odours, when he died, very much lamented by the Gentlemen who record this Story of him. For my Part, I do not know whether a Man of such Talents would not have been dangerous to Society." *

CONSTITUTIONAL SYPHILIS.

[Read before the Suffolk District Med. Society, and communicated for the Boston Med. and Surg. Journal.]

By A. D. Sinclair, M.D.

Mr. ——— contracted a hard chancre early in February, 1861, and in ten or twelve days from its appearance on the penis near the frænum, was put under mercurial treatment, which was continued regularly for about three months; the specific effect of the drug upon the gums having been produced two or three times. He was advised to continue the treatment still longer, but supposing himself relieved from his trouble, there being no visible trace of disease remaining, left off taking medicine, and in a few weeks, as I afterwards ascertained, married. This occurred in June, or between four and five months from the period of infection.

His wife, previous to marriage, was an exceedingly healthy woman, about twenty-four years of age. She soon afterwards became pregnant, and aborted about the end of September following.

She applied to me on the 21st of October, for relief from neuralgic pains about the head and body, which had continued very severe for two or three weeks. She had lost flesh and strength. Being asked as to the presence of any cutaneous eruptions, she gave an affirmative answer; several roseolar blotches were found upon the extremities, and an excoriation or erosion of a portion of the mu-

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* Le Cat. A Physical Essay on the Senses. 1750.

cous membrane of the right labium. She was directed an eighth of a grain of the bichloride of mercury thrice daily in solution, and requested to report herself from time to time. But when the eruption disappeared and the general health improved, she could not understand why treatment should be longer continued. It was therefore dropped.

In February, 1862, she had a severe attack of scarlet fever. Very soon after recovery from this she was seized with iritis, which was being effectually combated, but, through the advice of friends, the case was turned over to an oculist.

From this time (March), I lost sight of her till the middle of November, when I was sent for in great haste. I found her between seven and eight months advanced in pregnancy. The waters were slowly flowing from the vagina; no labor pains, nor had there been any; breech presenting and high up; cervix flabby. Nothing was done. In thirty-six hours I was again called, and soon after my arrival a dead fœtus was expelled. It looked sodden, the skin pealing off on slight effort, and exhaled, as usual in such cases, a very offensive odor. She made an excellent recovery.

In answer to inquiry, said that she had had occasional blotches of her "humor." Two or three faded spots were observed upon the thighs.

I am quite satisfied that the husband had no primary nor secondary lesion of the surface by which his wife could have been directly inoculated; that on the other hand his wife was not illicitly infected. It is therefore reasonable to conclude that this woman became infected through the embryo in utero; the ovum being fertilized by the vitiated seminal fluid of the man. Abortion took place early after her first conception, and immediately afterwards secondary symptoms became very marked. After a lapse of six months she again became pregnant, and miscarried between the seventh and eighth month of utero-gestation. Her limbs at this time showed the presence of constitutional syphilis.

OCCLUSION OF THE PYLORIC ORIFICE OF THE STOMACH BY A MALIGNANT GROWTH IN THE RIGHT LOBE OF THE LIVER.

By Samuel P. French, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

Mrs. G., of Royalston, Mass., aged 56, mother of two children, of robust constitution, above medium size, observed, five years ago, a small tumor in the right hypochondrium. She has enjoyed good health till within a year; the past year it has been miserable. She has had more or less pain in the left shoulder, has suffered much from indigestion, and has had slight tenderness in the region of the tumor.

I saw her for the first time on the 25th of January last. She was then attacked with vomiting, accompanied by great thirst and severe pain in the stomach. Her skin was yellowish white, pulse quick and weak. I examined the tumor. It was large and hard, situated a little above and to the right of the umbilicus, and extending upwards and outwards under the short ribs. *Diagnosis*—cancer of the right lobe of the liver.

As there was considerable tenderness near the pyloric orifice of the stomach, I applied a blister, which diminished the tenderness. The vomiting was allayed by small doses of calomel and morphine; the bowels were moved by repeated Seidlitz powders and injections. In a week, she was much relieved, and began to have an appetite. She then took sarsaparilla syrup, with iodide of potassium, and carbonate of ammonia. For a fortnight she was quite comfortable, and gained strength, but subsequently she was attacked with more violent vomiting, with greater thirst and distress than at first. The matter vomited was dark-colored, like coffee-grounds. The extremities were cold, the pulse frequent and weak; she lay constantly in a semi-flexed position, knees drawn up towards the bowels, the head and chest inclined over the stomach. Anodynes and creasote were tried, but had no effect. She obtained some ease from injections composed of morphine two thirds of a grain, broth and whiskey each one ounce. The vomiting continued one week, every two or three hours, and ceased about thirty-three hours before death. She then complained of great fulness and distress in her stomach. As she had not urinated for four days, I drew off her water, but could obtain only half a pint. Death finally relieved her of her sufferings.

Autopsy, twenty-four hours after death. Bowels much enlarged. On opening the abdomen, the liver was found to be twice as large as natural—the left lobe extending across the left hypochondrium, the right as low down as the umbilicus. The lower part of the right lobe was one solid mass of cancerous deposition, agglutinated to and completely surrounding the pyloric extremity of the stomach, implicating the pancreas and the contiguous mesenteric glands. The tumor was nearly spherical, about three inches in diameter, and lobulated. It was white, like the medullary substance of the brain, undoubtedly medullary cancer. The remaining part of the right and the whole of the left lobe were interspersed with white tumors as large as peas. The peritoneum was inflamed, but contained no serum. The stomach was enormously distended, extending to the ilea. I opened it, and removed from it one gallon of dark-colored liquid. I cut down to the pylorus, and found it completely compressed by the before-mentioned malignant growth. No cancerous depositions could be found in the mucous membrane of the stomach.

Cancer of the liver and of the stomach separately is frequent, but cancer implicating the liver, stomach and pancreas, and completely closing up by compression the pylorus of the stomach, is rare.

Richmond, N. H., April 13, 1863.

THE CINCHONA FORESTS OF SOUTH AMERICA.*

By Dr. Karl Scherzer.

When the frigate Novara left Batavia, I cherished the hope that our stay in South America would be sufficiently long to allow of undertaking a journey to the cinchona forests; and to be able to answer, through personal observation, certain questions, entrusted to us by Dr. Junghuhn, of Lembang, in regard to the conditions essential to the growth of the species of cinchona cultivated in Java. Instead, however, of the expedition as originally planned, it was only allowed me to tread the classic soil where Humboldt gathered the first scientific treasures; and this only for so short a time, that my visit had to be limited to the capital of Peru and its immediate neighborhood. A scientific excursion to the cinchona forests lying far in the interior was out of the question, under the existing circumstances. I did not neglect, however, to translate the inquiries confided to me by Dr. Junghuhn into the English and Spanish languages, and to forward copies of these interesting desiderata to such persons in Chili, Peru and Bolivia, who, from their mercantile position, or their interest in scientific discussions, seemed to be able to contribute towards deciding several questions respecting the growth of the cinchona in its native country. I took pains, at the same time, to collect for myself information on this subject, as often as opportunity offered, and by a very fortunate accident (as it appeared to me) I met in Lima Mr. Campbell, a merchant of Bolivia, who for many years has been living in Tacna, and has paid particular attention to the cinchona trade. For the chief export of this important drug is from Bolivia, and not from Peru, as its commercial name, "*Peruvian bark*," might lead one to suppose. This designation dates from the time when the Bolivia of to-day (in whose forests the cinchona chiefly grows) was an integral part of Peru, and was called Upper Peru; while from the present republic of Peru scarcely any Peruvian bark is exported, and that collected in New Grenada and Ecuador, and known under the name of Pitaya bark, is of a quality far inferior for medicinal purposes.

The most important fact which I am at present able to communicate is in correction of a wide-spread error, that by the greed of gain the extermination of the cinchona tree in its native home is near at hand, and that the supply of the remedial agent derived from its bark, which has become to the practising physician as indispensable as the Peruvian potato is to the working classes, will soon no longer suffice for its daily-increasing use. The Calisaya region (i. e., in which the Cinchona Calisaya, whose bark is most prized and valuable, occurs most abundantly and thrives best) stretches from one degree north of Lake Titicaca to the twentieth degree of south latitude. In the forests of Cochabamba, viz., between this point and La Paz, the cinchona occurs more abundantly than in those forests lying parallel to La Paz, in which it is now found only at such a distance from the city that the cost of transportation through the wilderness amounts to 17 pesos per hundred weight. The forests lying more southerly, on the contrary, are still untouched by the axe of the *cascarilleros.* The largest proportion is exported from Tacna and Arica; a small quantity only, suspected of being contraband, goes northward from Lake Titicaca, in order to be shipped through Port d'Islay.

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* From the Voyage of the Austrian Frigate Novara around the Earth, in 1857, 1858 and 1859. Vienna, 1862.

From the district above mentioned 8 to 10,000 hundred-weight of bark could be gathered annually for an indefinite period, without the least danger of exterminating the tree. Since 1845 the export of cinchona bark from Bolivia has been a monopoly of the government, which conveyed the right to a company which bound itself under a certain sum to the yearly export of 4000 hundred-weight.

This company paid the *cascarilleros,* or persons who gathered the bark in the cinchona forests, 25 to 30 pesos, for every hundred-weight of Calisaya bark delivered in La Paz, the chief city of Bolivia. But this arrangement had but partial success, for speculation and avarice, as well as the continual political unsettlement and alterations in the government of the country, stood in the way of the quiet development of this branch of industry and trade. Each new president wished to draw the greatest possible gain from the natural treasures of the soil, and the sum demanded for the right to export the cinchona bark constantly advanced. In 1850, a native mercantile house in La Paz paid to the bark gatherers 60 pesos for every hundred-weight, besides an export tax to the government of 25 pesos per hundred-weight, while the contractors bound themselves to a yearly collection and export of 7000 hundred-weight. The exorbitant price paid to the *cascarilleros* occasioned an enormous quantity of Calisaya bark to be brought to La Paz. In order to restore the average, and not to fill the market far beyond the demand, the government now prohibited the cutting and gathering of the cinchona bark. Within eighteen months 18,000 hundred-weight had been delivered, and this circumstance caused such a fright among the monopolists that they declared themselves bankrupt, and were only spared from complete ruin by the moderation of the government, which took possession of the whole stock, paid the speculators with certificates, redeemable in certain periods, and concluded a new contract with a native mercantile house, in which the selling price of an hundred-weight of bark delivered in La Paz was limited to 65 pesos clear of further export duty.

As soon as the present stock is exhausted, it is probable that the prohibition on the cutting of the Calisaya bark will be again withdrawn, and by the serious lesson learned in the mean time, the excessive and dangerous eagerness of the *cascarilleros* for collecting may be prevented.

My visit in Java was just at the time when chemical experiments were being tried on the bark of the young cinchona trees, and the fact that in these the costly alkaloid was not found, excited the apprehension that the bark of these trees, cultivated with such great care, would perhaps be entirely destitute in the land of their adoption—under altered climatic and geognostical circumstances—of their most valuable constituent. But the information obtained by me in South America shows that even in its native home the quinia is met with only in the bark of the older trees, and its quantity bears a proportion to the age of the branch. The bark of the trees which are 50 years and more in age are richest in quinia. To the ignorance of this fact must probably be attributed the annual felling by the cinchona-gatherers, or cinchona-hunters *(Cazadores de Quina)* during the time of the Spanish rule, of 800 to 900 cinchona trees of 4 or 5 years of age, in order to obtain the 110 hundred-weight of bark which was sent from Payta around Cape Horn to Cadiz, exclusively for the use of the royal court.

In reference also to the quantities annually exported from South America, and consumed in European preparations, very considerable errors have crept in, even in scientific circles.

The total export of cinchona from South America, from 1830 to 1860, has not exceeded, according to reliable accounts, 200,000 hundred-weight* (the seven inferior kinds not included), while of Calisaya, the real red bark (cascarilla roja), certainly not more than 120,000 hundred-weight has been sent abroad. While thus the yearly export of Peruvian bark appears to be far less than is generally supposed, a species of cinchona has lately for the first time been discovered in the forests of Bolivia, between Tarija, Cochabamba and La Paz, whose bark is said to possess the same characteristics as that of the Cinchona calisaya. The curate of Tarija has offered for sale nearly 3000 hundred-weight of this valuable bark (called *Sucupira* by the Indians). The position of the forests is so favorable for export, that the freight from Tarija to Iquique, the nearest seaport, is but from 8 to 10 pesos per hundred-weight.

Upon referring to these communications, and to the not inconsiderable increase which has resulted from the successful propagation of the cinchona in Java and the East Indies, all apprehension may disappear that this noble tree is nearly exterminated, and suffering humanity threatened, by ignorance and vandalism, of being deprived of one of the most active and important of the physician's remedies.—*American Journal of Pharmacy,* from *Vierteljahresschrift für Praktische Pharmacie,* Bd. xii., H. I.

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* Weddell, on the contrary, states that one manufactory, that of Pelletier, Delondre and Levaillant, in Havre, had used in one year (1857) not less than 17,100,000 hundred-weight of the best cinchona bark in the production of quinia. This is either a typographical error, or a colossal exaggeration.

ON PURE PEPSIN.

By M. Bruecke.

Pepsin can be precipitated from its solutions by agitation with cholesterin, phosphate of lime, or animal black; dissolved in water containing phosphoric acid, it can also be precipitated when neutralized with lime water, and is contained in the precipitate of phosphate of lime without being in combination with that salt.

On these facts, M. Brücke has based a new process for the preparation of this important substance; he has obtained it in a state of purity unknown to this time, and which permits him to rectify a good number of statements in regard to it in the treatises.

Two recent hogs' stomachs are digested in weak phosphoric acid, at the temperature of 100 F., which detaches the mucous coat in fragments. The solution is filtered, and the residue again digested at the same temperature. The filtrate should be clear, and yellow prussiate should not indicate albumen. Lime water is now added until the neutralization is nearly complete as tested by litmus, the precipitate collected, expressed, and dissolved in water containing hydrochloric acid. The clear solution is again precipitated by lime water, redissolved by hydrochloric acid, and filtered.

Into a flask, sufficiently large to contain the liquid, a funnel with a long beak is introduced, and into it a solution of cholesterin, prepared cold, with a mixture formed of four parts of alcohol of 94 per cent. and one part of ether. By contact with the acid liquid the cholesterin separates in very fine particles and rises to the top of the liquid; when the coagulum acquires the thickness of about two centimetres, the funnel is removed and the liquid shaken quickly and frequently, by which the pepsin is removed from solution by the cholesterin; afterwards filter, wash the filter with acid water and then with pure water, till the washings lose their acidity and reaction with nitrate of silver. Now in treating with ether, the cholesterin is dissolved whilst the adhering water forms an opaque layer with the pepsin, which is agitated repeatedly with fresh portions of ether, until nothing remains but an aqueous liquid from which the adhering ether passes off, and leaves a transparent solution of pure pepsin.

When acidulated with dilute hydrochloric acid, this liquid possesses energetic digestive properties, dissolving fibrine readily in an hour.

As has been remarked, that pepsic liquid is far from partaking of the reactions which are usually considered the characteristics of pepsin. Thus it is not affected by any of the reagents which indicate albumen, as per example by nitric acid, tincture of iodine, tannin and bichloride of mercury. This last point is of great importance, since the pepsin analyzed by M. Schmidt was prepared by precipitation with bichloride of mercury.

Nitrate of silver renders the liquid lightly opaline. Bichloride of platinum occasions a sensible troubling; it is precipitated abundantly by the acetates of lead, even in the presence of free acetic acid. It follows from this that our ideas of pepsin ought to be modified and its analysis made.—*Jour. de Pharm., Dec.* 1862.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, APRIL 23, 1863.

Death of Dr. Robert Ware.—No sadder intelligence has come to us during the war than that contained in a solitary letter which made its way out by night from the little beleagured army at Washington, North Carolina, and reached here last week, bringing the information that the brave men, for whom we have all been so anxious, were still safe; but that one, Dr. Ware, of the 44th Mass. Vols., had died of lung fever, on the 10th inst., brought on or aggravated by overwork. Dr. Ware was the son of Dr. John Ware, of this city. He graduated at Cambridge in 1852, and from the Medical Department of the University in 1856, having spent a year of his student life in Europe with his father. For several years he had charge of the largest dispensary district in the city, and his death will be most sincerely mourned by the numerous poor, who never failed to recognize in him a conscientious and skilful helper in their troubles. We have repeatedly had opportunity during his absence to witness how spontaneous and universal was the expression of this feeling towards him by this class of our foreign population, who were so long the recipients of his professional kindness. It was something entirely exceptional, and speaks more eloquently of the man and physician than any words of praise which may be written in memory of him. With his professional brethren he bore the character of one modest, devoted to his art, and eminently gifted with sound judgment, and for these high qualities he gained the respect of all who knew him. To his friends he was the genial and amiable companion, fond of humor, and filled with pleasant knowledge drawn from his extensive general reading. His own contributions to medical literature were but few, for he had been so earnest a worker and observer that he had never found the time or will to write, but all knew that he too possessed to a remarkable extent that power of accurate observation and the mature judgment, which so eminently qualified his father for the position he so long and successfully filled, of Professor of the

Theory and Practice of Medicine in Harvard University. In the winter of 1860 and '61 he prepared for the Sanitary Association a most thorough report upon the epidemic of smallpox at that time prevalent in this city, which contained, also, a history of that disease and of Inoculation in New England from the time of its settlement. This memoir, with the valuable suggestions it contained, was considered of so great importance, that it was published by vote of the Legislature and distributed throughout the State. He also prepared, from time to time, for this JOURNAL, reports of medical cases occurring at the Massachusetts General Hospital, which were models of excellence in clearness and conciseness.

In the fall of 1861, he entered the service of the Sanitary Commission as inspector of hospitals and camps, and remained absent in the discharge of these duties until last summer, when he returned, and soon afterwards accepted the position of Surgeon to the 44th Massachusetts Volunteers. He remained with his regiment mostly in the vicinity of Newbern from its departure up to the present time, when we knew that it had been hemmed in at Washington by the rebels, earnestly devoted throughout to its interests ; too much so, alas ! for his and our advantage, for it was from too severe labors that he suddenly fell ill and died. No young man in our profession among us gave promise of a brighter future, and perhaps none other so fully as he possessed that rare combination of qualities so necessary to make a good and great physician.

It has so come to pass that within the last few weeks two of our most beloved and honored physicians have been called upon to resign forever the hopes and affections they had centred upon sons destined to sustain the name and reputation their fathers had gained in our community and profession. One of them had but just entered upon his medical studies, when a burning patriotism at once took him forth to battle for his country, and he fell, a gallant, brave and manly soul, far ahead of his troop, in his first charge upon the enemies of our country, grasping his unyielded sword even in death. The other, worn down by incessant labor in behalf of the noble band of young heroes committed to his professional charge, surrounded by a hostile army, fell too in harness, and died a patriot's death.

May their example stimulate the zeal of all who are engaged in the same holy cause, and may their families find some consolation for the sacrifice they have made for us in the sympathy which fills the hearts of all.

BOYLSTON MEDICAL SOCIETY.—The annual prize for the current year, for the best medical dissertation by an undergraduate, has been awarded to Mr. Norton Folsom, of Cambridge, for an essay on the senses of "Smell and Taste."

By order of the Prize Committee, DAVID W. CHEEVER, M.D.,
Boston, April 15, 1863. *President of the Society.*

We are pleased to learn that this old and established Society of Undergraduates in the Medical School of Harvard University is recovering its former size and usefulness. *Twenty-seven* new members have been added during the lecture season just passed, and we trust that it will continue to increase and extend its influences for medical improvement among as many future classes of students as it has already done since its first organization, a half a century ago.

Mr. Folsom, the successful competitor for the prize, and whose essay we publish to-day, is a member of the present medical class, and has just been appointed one of the house-pupils at the Mass. Gen. Hospital. We are pleased to see this evidence of a spirit of original observation and experimentation among the students, for it has hitherto been inexcusably neglected among us in our system of medical education. The cadaver and text book are not the only sources of information at command, and the study of physiology, as Mr. Folsom has so well demonstrated, may be pursued with advantage and credit by observations directed to the living animal.

MIDDLESEX SOUTH DISTRICT MEDICAL SOCIETY.—At a meeting of the Society, held at Waltham, April 15th, 1863, the following gentlemen were elected officers for the ensuing year:—*President*, Dr. John W. Osgood. *Vice President*, Dr. Theodore Kittredge. *Secretary*, Dr. Francis H. Brown. *Treasurer*, Dr. R. S. Warren. *Supervisors*, Drs. Samuel Richardson, Henry Bigelow, J. L. Sullivan. *Censors*, Drs. Morrill Wyman, Moses Clarke, J. H. Brown. *Commissioner on Trials*, Dr. Anson Hooker. *Councillors*, Drs. Josiah Bartlett, C. H. Allen, Enos Hoyt, J. B. Taylor, A. Mason, Henry Cowles, O. E. Hunt, A. B. Bancroft, A. C. Livermore, Howland Holmes, L. E. Partridge. *Essayist*, Dr. Alfred Hosmer. *Delegates to the American Medical Association*, Drs. W. W. Wellington, Moses Clarke, Enos Hoyt, Jefferson Pratt, Josiah Bartlett, Anson Hooker, Samuel Richardson, Alfred Hosmer, R. S. Warren. FRANCIS H. BROWN, *Secretary.*

THE FLATHEAD INDIANS.—The Flatheads extend over a wide range of country from 130 miles up the Columbia river to its mouth, and along the Pacific coast and the Straits of De Fuca, Puget's Sound, and Canal Diaro to near the mouth of Frazer's river: as well as on Vancouver's Island. . . . . During Mr. Paul Kane's travels among those tribes he saw hundreds of children undergoing the process of flattening the head, and thus describes the mode of procedure. The infant is strapped to the cradle-board, which is carefully covered with moss of finely frayed fibres of cedar-bark, and is fitted with a head-board which projects beyond the face, so as to protect it from injury. In order to flatten the head, a pad, made of a piece of skin stuffed with soft cedar-bark, is laid on the infant's forehead, and on the top of this a slab of hard bark, with the smooth side under. This is covered with a piece of pliant deer-skin, and is bound tightly by means of a leathern band passing through holes in the cradle-board, while the head is supported and kept in an immovable position by a pillow of grass or frayed cedar-bark placed under the back of the neck. This process commences immediately after the birth of the child, and is continued for a period of from eight to twelve months, by which time the head has assumed the flattened or wedge-shaped form, which constitutes the ideal of Chinook or Cowlitz grace. Another process is by means of a square piece of leather, with thongs attached to the four corners, placed over a pad on the forehead, and secured tightly to the board. Other pads are placed under the head, and at its sides, according to the special form which it is desired to give it. Mr. Kane remarks: "It might be supposed, from the extent to which this is carried, that the operation would be attended with great suffering, but I have never heard the infants crying or moaning, although I have seen the eyes seemingly starting out of the sockets from the great pressure From the apparent dulness of the children whilst under the pressure, I should imagine that a state of insensibility is induced, and that the return to consciousness occasioned by its removal, must be naturally followed by the sense of pain." The brain in its process towards maturity seems partially to recover a less abnormal form, especially where the pressure has been applied so as to produce the elevated wedge shape, with the breadth of the whole mass presented in front and rear. Mr. Kane was led to the conclusion that this violent process in no degree injures the health, as from inquiries made by him it did not appear that the mortality among the Flathead children is greater than among other Indian tribes. The evidence that it leaves the intellect unimpaired rests on more absolute proof. The Flathead tribes are in the constant habit of making slaves of the neighboring roundheaded Indians, whom they treat with great barbarity ; and though living among them, these are not allowed to flatten or modify the form of their infants' heads, that being a distinguished mark of freedom, and a badge of aristocratic descent. They look with contempt on the whites as a people who bear in the shape of their heads the hereditary mark of slaves. They are, moreover, acute and intelligent, have singular powers of mimicry, and have been noted for very retentive memories : being capable of repeating passages of some length, and with considerable accuracy, when recited in their hearing. It would, indeed, appear, that alike in the time of Hippocrates and in our own day, an idea has prevailed among those who practised the strange barbarian usage of remodelling the human head, that they thereby not only conferred and added grace to its form, but that they contributed no less to the mental superiority of those among whom this has ever been the peculiar symbol of aristocracy, and the mark of the dominant race. If it did, in reality, produce an opposite effect, and tend either to mental inferiority or absolute insanity, it would lead to speedy and inevitable revolutions among those tribes where the helots are rigorously excluded from the practice. But neither among the Peruvians, nor the ancient or modern North American tribes, is there any evidence of the normal cranium having thus practically demonstrated its superiority over the deformed or flattened skull.—*Prehistoric Man*, by Daniel Wilson, LL.D.

Canada Lancet.—The arrival of the second number of this new journal reminds us that we have been somewhat tardy in announcing its appearance to our readers. It is to be published monthly in Montreal, under the editorship of Dr. William E. Bowman, and, as the only medical periodical at present published in the British Provinces, we hope it will receive the support and success the attempt deserves.

Application of Magenta Dye in Microscopical Investigations.—At a recent meeting of the Microscopical Section of the Literary and Philosophical Society of Manchester, Dr. Roberts called attention to the aid that might be received in the examination of the structure of animal and vegetable tissue by the use of coloring materials. Magenta is peculiarly adapted for this purpose, in consequence of its solubility in simple water and its inert chemical character. The nuclear structures of animal cells are deeply tinted by Magenta and by its use the nuclei of the pale blood corpuscles, of pus globules, of the renal and hepatic cells, and of all epithelial structures, are brought out in great beauty, tinted of a bright carbuncle-red. The *red* blood disks are tinted of a faint rose-color, and a darker red speck, not hitherto noticed, is to be observed on the periphery of the corpuscle: it undergoes some change when treated with tannin and subsequently with caustic potash, but this point is still under investigation.—*Annales and Magazine of Natural History.*

New Use for Benzine.—Benzine, which has been found in abundance for some years, in commerce, possesses, like other volatile and fatty oils, the property of giving to paper a decided transparency, which disappears after the evaporation of the liquid. This property enables one to avoid the use of tracing paper for drawing or designs. It is only necessary to spread upon the object to be copied an ordinary sheet of paper, and to wet with benzine, by means of a sponge, the place that one wishes to trace, to render this place transparent, and to be able to trace upon it with a pencil and India ink, the design that can be distinctly seen beneath it. The benzine immediately and entirely evaporates, without leaving any trace, and the paper becomes opaque. The original design, moreover, is by no means hurt. As to the odor, which is not absolutely disagreeable, provided the liquid is not too impure, the paper can be freed from it in a few hours, provided that care is taken to air and heat it. We are indebted to Prof. M. Oelschlager for the discovery of this process.—*Journal de Chimie Médicale*, January, 1863.

A Symptom of Fracture of the Base of the Skull.—In a communication made to the Surgical Society of Paris, M. Dolbeau has called attention to the presence of ecchymosis of the pharynx at its upper part as a sign of fracture of the base of the skull. In a case admitted into the Bicêtre, where death took place twelve days after the receipt of the injury, the patient complained, when sensible, of pain in swallowing. On examination after death, the base of the skull was found fractured: and there was infiltration of blood behind the pharynx, from the occipital bone to the second cervical vertebra: the mucous membrane of the pharynx was also evidently ecchymosed. In two other cases in which the symptoms pointed to injury of the base of the skull—contusion in one, and fracture in the other—and in which recovery took place, pain in deglutition was complained of: and, on examination, in each case there was found to be ecchymosis of the posterior wall of the pharynx. The portion of the pharynx in which the ecchymosis occurs is rather difficult to be seen: it is limited by the bone of the skull above and the velum palati below, by the vertebral column behind, and the posterior orifice of the nares in front.—*British Medical Journal*, June 7, 1862, from *Presse Méd. Belge*, 27 Avril, 1862.

Bromide of Ammonium—Hydrobromate of Ammonia.—At the late meeting of the British Association for the Advancement of Science, held at Cambridge, a paper was read by Dr. Gibb, "On the Physiological Effects of the Bromide of Ammonium." He said that, "although not complete, his experiments were sufficiently positive in their results to justify him in bringing the subject before the Association."

This salt, he stated, had a tonic, sedative, or antispasmodic action, according to the quantity given and the mode of administration; and the structures affected by it were the skin and mucous membrane, and fatty compounds. In producing anæsthesia of the fauces, it was superior to the bromide of potassium, and possessed the power of diminishing fat in the economy, and influencing the arrest of atheromatous changes; and he thought it would ultimately be found of more value for the reduction of corpulency and allied states than any other substance at present known. It has been found to be very useful in some of the milder forms of skin disease, and of equal value with the bromide of potassium as an absorbent in glandular and other enlargements, and superior to it, in some respects, in the treatment of some other forms of disease. Dr. Gibb has also employed it in epilepsy with marked benefit, and also in cases of strumous ophthalmia in the young. Bromide of ammonium is a white prismatic salt, becoming yellow and slightly acid by exposure to air. It is very soluble in water, but only sparingly soluble in alcohol. It is composed of one atom each of bromine and ammonium.

Dr. E. R. Jameson, of Woburn, late Hospital Steward of the Mass. 11th Regiment, has been appointed Assistant Surgeon of the Mass. 54th (colored) Regiment, now at Readville.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, APRIL 18th, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - - -	33	34	67
Ave. mortality of corresponding weeks for ten years, 1853—1863,	36.6	39.7	76.3
Average corrected to increased population - - - -	00	00	84.09
Death of persons above 90 - - - - - - - -	0	2	2

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
15	2	4	5	0	0	1	1

Communications Received—From Dr. J. B. Upham, Dr. John Stearns, Dr. B. Joy Jeffries, and Dr. D. W. Cheever.

Books and Pamphlets Received.—Eighth Annual Report of the Births, Marriages and Deaths in the city of Providence, R. I., for 1862. By Edwin M. Snow, M.D. Second Edition. (From the Author.)—Physiological Memoirs. By William A. Hammond, M.D., Surgeon-General, U. S. Army. 8vo. Pp. 348. Philadelphia, J. B. Lippincott & Co. 1863. (From the Publishers.)—Sanitary Commission. Supplement to Report concerning aid and comfort given to sick soldiers passing through Washington. By F. N. Knapp, Special Relief Agent.—Second Report to the Committee of the Sanitary Association on the General Hospitals of the Army. By H. G. Clark, M.D., Inspector-in-Chief. (From the Author.)

Journals Received.—The Cincinnati Lancet and Observer, April, 1863.—Canda Lancet, vol. i., No. 2.—American Medical Times, vol. vi., No. xiv.—Cincinnati Medical and Surgical News, April, 1863.

Deaths in Boston for the week ending Saturday noon, April 18th, 67. Males, 33—Females, 34.—Accident, 1—apoplexy, 2—inflammation of the bowels, 1—congestion of the brain, 3—softening of the brain, 1—carbuncle (on neck), 1—consumption, 15—convulsions, 1—croup, 2—cyanosis, 1—debility, 1—diphtheria, 1—dropsy, 2—dropsy of the brain, 3—drowned, 1—scarlet fever, 4—typhoid fever, 1—hæmoptysis, 2—infantile disease, 5—intemperance, 1—inflammation of the lungs, 5—marasmus, 3—old age, 3—paralysis, 1—premature birth, 2—scrofula, 1—sore throat, 1—tabes mesenterica, 1—unknown, 1.

Under 5 years of age, 31—between 5 and 20 years, 9—between 20 and 40 years, 13—between 40 and 60 years, 7—above 60 years, 7. Born in the United States, 50—Ireland, 14—other places, 3.

THE

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A FEW CASES OF EXCISION OF ELBOW- AND SHOULDER-JOINTS, DONE AT HAMMOND GENERAL HOSPITAL, POINT LOOKOUT, MARYLAND.

BY JOHN STEARNS, JR., M.D.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS.—I had prepared a synopsis of a few cases of excisions, which came under my immediate observation while at Hammond General Hospital. The record has been approved and sent on with others to the Surgeon-General. It occurred to me that you might like to use them for the JOURNAL, as I have seen none published. Besides, I learn that this operation has not been successful in its results. Having watched these cases, I can safely state they were eminently good and encouraging. There may be something peculiarly favorable to the healing of wounds at Point Lookout, for nearly all of those received from Fredericksburg (1100) did wonderfully well. I think it is not generally known what an excellent place this is for a hospital. The percentage of deaths is less than 2 per cent. There has not occurred a single case of hospital gangrene, and medical and surgical cases alike progress to cure with great rapidity.

CASE I.—Priv. McMurphy, 5th N. Y. V., wounded at Fredericksburg, Dec. 13th, 1862, by a Minié ball, which shattered the ulna of the left arm for about two inches from the olecranon, involving the joint. Admitted to Hospital Dec. 16th. Excision of joint Dec. 18th—H operation. Passive motion made at end of third week. Wound healed Feb. 25th, 1863. Flexion and extension good at this time, and some degree of pronation and supination possible.

March 25th.—Motions of joint excellent.

CASE II.—Priv. Douglass, 63d Penn., wounded at Fredericksburg, Dec. 13th, 1862. Admitted to Hospital 16th. A Minié ball entered the left forearm near a point over the neck of the radius, and came out just above inner condyle, comminuting head and neck of radius, and portions of coronoid and olecranon processes of ulna. Excision of joint Jan. 12th, by H incision.

March 31st.—Movements of joint fair. Wound nearly closed, and patient doing perfectly well.

Case III.—Priv. Wellover, 131st Penn., wounded at Fredericksburg, Dec. 13th, 1862. Admitted 16th. A Minié ball shattered olecranon process of left ulna. The ball was extracted, after entrance to Hospital, from a position in front of inner condyle. Patient was much prostrated after entrance. Excision of bones of joint Jan. 10th, 1863, by straight incision (Langenbeck's).

Feb. 28th.—External wound healed, and movement of joint good.

March 31st.—Pronation and supination perfect; full extension and nearly perfect flexion.

Case IV.—Priv. Lewis, 133d Penn., wounded at Fredericksburg, Dec. 13th, 1862. Admitted 15th December. A Minié ball entered posterior aspect of left arm, over olecranon. A portion of this process and of the inner condyle of humerus were fractured. Excision of joint Jan. 15th, 1863—H incisions.

March 3d.—Wound healed, and all motions of joint good.

Excisions of Head of Humerus.

Case I.—Priv. Campbell, 4th N. Y. V., wounded at Fredericksburg, Dec. 13th, 1862. Brought to Hospital 16th. A Minié ball entered just outside the acromion of left shoulder, and passed down the arm, shattering a portion of head of humerus (inner aspect). The same was extracted, a few days subsequently, from just below axilla. Excision was done on 17th January, 1863, by semilunar incision. The bone was taken off just below the tuberosities. There was no injury to glenoid cavity. Cold-water dressing applied throughout.

March 10th.—Wound healed, and motions of forearm free, and, by passive motion, arm can be raised to a right angle with body.

31st.—All motions good excepting rotation. Voluntary motion increasing daily.

Case II.—Sergt. Dolan, 2d U. S. I., wounded at Fredericksburg, Dec. 13th, 1862. Entered Hospital 16th. A Minié ball entered left shoulder just inside acromion process of scapula, and lodged just below the head of humerus, splitting off about an inch of that bone at this place. Patient was much prostrated, and confined to bed long after entrance to hospital. When placed under ether for examination, the motion of joint was so good that it was pronounced uninjured. A second examination proved the extent of injury, but his condition did not warrant an operation until March 6th, when the joint was exposed by flap incision, and about two inches of humerus removed, with the head. In a week after he was about as usual, and in four weeks from time of operation the wound had healed, the patient progressing most favorably. An opening was made on the inner and posterior aspect of the arm to facilitate the escape of pus, which was slight and of perfectly healthy character.

April 5th.—Everything progressing favorably.

HOSPITAL NOTES AND MEMORANDA.

By J. Baxter Upham, M.D., Surgeon in charge of Stanly Gen. Hospital.

Further Cases in illustration of the Cerebro-spinal Affection occurring in and around Newbern, N. C.

The following case is interesting as showing, in a marked degree, the petechial eruption which has, in many instances, been an early and prominent feature of the disease.

Case XX.—W. B., a private, was admitted to Hospital January 19th, at 7, P.M., when his regimental surgeon, Dr. Ware, gave the following statement of his case. "Attacked this morning (Jan. 19th). Has had eighty grains of quinine since 10, A.M; has been cupped to extent of five ounces, and taken stimulants and beef-tea steadily during the day. Since 3, P.M., his pulse has improved in force and volume."

The disease was ushered in by slight chills, followed by hot skin and full, quick and frequent pulse; soon afterwards the surface became cool and moist. Had, on admission to hospital, intense headache, but no active delirium; recognized his friends readily; intelligence good when roused; general powers good; some deafness; eyes natural; lies upon right side; tongue dry, tending to brown at base, with a pasty yellowish stripe along its sides, natural at tip; respiration 28; some dulness on percussion; mucous râle at left base; pulse regular, moderately full, hard, 132. A typhus-like eruption, scattered very generally over shoulders, arms, chest, legs and back—none upon the face. These spots vary in size from a pin's head to a split pea, are dark, measles-like in hue, persistent, not prominent to the touch, seemingly imbedded in substance of the skin. There was slight fulness of abdomen. Patient had had an enema of turpentine, producing one dejection. His face was of a dusky hue. Skin moderately warm, inclining to moist. Delirium soon after set in, which presently became active, accompanied with spasmodic action of the facial muscles and convergent strabismus. There was tumultuous action of the heart, with well-defined triplicate sound. Patient gradually grew worse, without any mitigation of symptoms till his death, which occurred without much apparent exhaustion, in a few days. No *post-mortem* could be obtained.

The following was under the care of Dr. Treadwell till March 8th, when, Dr. T. being taken ill, the case was continued by my associate, Dr. Haddock.

Case XXI.—L. T. P., private, previously healthy, came into Hospital Feb. 19th. Seized with slight chill on 17th. Soon became delirious, with symptoms of high febrile excitement. *Condition on admission.*—Surface hot; petechiæ on arms and breast; countenance expressive of pain; respiration somewhat accelerated; tongue dry and covered with dark fur; wholly unconscious; pulse 124, small and corded; abdomen natural; bowels regular. Was bled eighteen ounces, with decided relief; pulse became fuller and less frequent; respiration less labored; semi-conscious; deglutition impossible. ℞. Quinine and turpentine, by injection, every three hours.

20th.—Appears better; skin less hot; delirium less active; pulse 116, full, soft; respiration 18, quiet; moans, as if suffering pain; two dejections. Treatment continued. Blister to neck. Twenty grains of Dover's powder at night.

21st.—Answers questions; pulse 116; respiration 18; skin moist; countenance more natural; can swallow. ℞. Twenty ♏ turpentine, ev. 3 hrs. Dover's powder at bedtime. Quinine by injection.

22d.—Continued same; pain in back and limbs; tongue coated; pulse 118, full; respiration 20, labored; one dejection.

23d.—Remained same; one dejection. (Continue.)

24th.—Perfectly rational; pulse 110; respiration 16; skin moist and cool; diarrhœa came on during night; thirst. ℞. Pulv. Doveri, ʒ i.; acet. plumbi, gr. xviii. M. chart. No. vi., s. 1 ev. 4 hrs.

25th.—Remained very much the same; no diarrhœa since midnight; asks for more food. Omit powders. Continue treatment.

26th.—Continues to improve; skin cool and moist; pulse 112, full; respiration 18. (Continue.)

27th.—No apparent change; less pain; mind clear; sleeps well; strength remains good. (Continue.)

28th.—Skin natural; pulse 110, good; respiration 20; two dejections. (Continue.)

March 1st.—Apparently improving. (Continue.) Five grs. quinine ev. 3 hrs.

2d.—Restless night; pain in back and legs; tongue dry, whitish fur; pulse 112; respiration 20; one dejection. ℞. Dover's powder, gr. x., ev. 4 hrs. Continue treatment.

3d.—Had a good night; less pain. ℞. of 2d omitted. Treatment continued.

4th.—Pulse 108; respiration 16, quiet; one dejection; strength good. Insisted upon getting up. (Continue.)

5th.—Much the same. (Continue.)

6th.—Apparently improving. (Continue.)

7th.—Mind clear; pain in back and neck; skin natural; pupils regular; pulse 70, full and strong; respiration 20, quiet; abdomen natural; one dejection; strength good. (Continue.)

8th.—Very much same. ℞. Aq. camph., ℥ i. ev. 3 hrs.

9th.—Remains same. (Continue.) ℞. Pil. morphia and copper pills, 1 ev. 3 hrs.

10th.—Delirious; skin dry; heat. ℞. Aq. camph., ℥ ij.; carb. ammon., gr. xv. M. ℥ ss. ev. 2 hrs.

11th.—Pain in limbs and back of neck; answers questions correctly; much heat; pulse 110. Morphia, ¼ gr.

12th.—Remains same; not much pain; four discharges during day. (Continue.)

13th.—Great pain in limbs; delirious; hot: tongue dry, brown; frontal headache; mind clear at times. ℞. ʒ i. morph. solut. ev. 4 hrs.

14th.—Seems better; passed a good night; some pain yet; says he feels pretty well. (Continue.)

15th.—One dejection; bad night; great pain in limbs; bed sores. (Continue.)

16th.—Remains same. Fl. ext. ergot, ʒ i.: 10 drops ev. 4 hrs. Delirious; constantly talking; noisy all night. Increased ergot to 15 ♏.

17th.—Apparently failing. (Continue.)

18th.—Very feeble; tremulous; unconscious; muttering delirium; *singing* at times; eagerly catching at objects, real or imaginary; vision lost or greatly impaired.

19th.—Continue ergot, 15 ♏ ev. 4 hrs.

20th.—Answers questions correctly at times; relapses into stupor; less tremulous.

21st.—No dejection for three days. ℞. Sal. Epsom, ℥ i. ev. 4 hrs. Urine free, involuntary; answers questions at times; face red, shining; pulse variable; subsultus; head persistently thrown back; urine strongly ammoniacal; great pain if moved.

22d.—Puts out his tongue when asked; eruption on face and abdomen; eyes dull; one discharge; tongue dry, brown, cracked.

23d.—Vision; puts out his tongue when asked; pulse rapid and feeble; tongue same as yesterday; more quiet; urine involuntary, ammoniacal; sordes on teeth; jactitation; subsultus; neck thrown back, stiff; groans if moved.

24th.—No intelligence; tongue dry, brown; limbs cold; apparently dying.

25th.—12.10, A.M., died.

Autopsy, 10 hours after death (conducted by Drs. Haddock and Meredith). Body of medium size, well developed; but little emaciation; rigor not marked. *Head.*—Nothing abnormal in external aspect of cerebral membranes; veins beneath somewhat engorged. A thin milky fluid in spots on surface of cerebrum. Substance of brain firm and normal; no points on its cut surface. A small clot of pus-like lymph is seen on middle of its upper surface on either side of longitudinal fissure. On its base, covering the origin of the nerves of sense, pons Varolii and medulla oblongata, and lodged in the posterior fissure of the cerebellum, is a mass of tenacious, yellowish, pus-like lymph, three eighths of an inch in depth, and (by estimate) from one half to three fourths of an ounce in quantity. A deep longitudinal incision through the pons Varolii and medulla oblongata caused three ounces of slightly clouded serous fluid to well up with considerable force. The lateral ventricles were filled with a similar fluid—that in the left holding partly in suspension one drachm of the pus-like deposit above mentioned, and a few drops of the same deposit in the right. The exudation seemed also to extend down the spinal cord. *Chest.*—Lungs healthy; pericardium normal. In right ventricle of heart was found two to three drachms of partially organized lymph. *Abdomen.*—Stomach not examined. Liver and spleen natural. Gall-bladder fully distended with dark fluid bile. Colon swollen with gas; small intestines healthy; Peyer's patches in some cases presenting the shaven-beard appearance, in one instance a little thickened; otherwise nothing abnormal. Bladder distended with urine.

The case just cited was longer in its duration than any previously reported, and may be taken as a type of a large class that seemed almost to yield to assiduous treatment, but finally succumbed, with pathological results similar to those seen in the most rapid and violent forms of the disease.

The cases hitherto reported have been those only which had a fatal result. Those which follow are among the recoveries, which, it must be reluctantly admitted, have up to this time formed the sad minority. The five cases next in order were furnished by Dr. Cowgill, in charge of Academy Hospital.

Case XXII.—F. L., private, aged 20 years, admitted Jan. 31st, at 6, P.M. Had a slight chill at noon, very slight febrile action, apparently not very sick. Prescribed one cathartic pill at bed time.

Feb. 1st.—At noon, was suddenly seized with violent delirium and great excitement, requiring force to restrain him in his bed. Pulse 90; pupils contracted; great tenderness of back of neck. Applied cups to neck, mustard to spine and extremities, and gave quinine gr. viii., and calomel gr. v. at once, and ordered the dose to be repeated at 9 o'clock, P.M., and 6 o'clock, the next morning.

2d.—Symptoms the same. Gave calomel, gr. ii., and ipecac., gr. ½, every two hours, and repeated the cupping. This treatment continued until—

5th—When conjunctivitis occurred, accompanied by an eczematous eruption around lids. Patient became weaker and brain was greatly relieved—delirium lessened, after which I prescribed whiskey, ℥ ss. with milk every three hours, and cal., gr. ii., with quin., gr. ii., every four hours.

6th.—Pulse 94; tongue clean and moist, as it had been throughout the attack, and delirium subsided.

8th.—Pulse 85; and patient better in every respect, except the eyes. Applied blister to side of temple, leadwater to eye, and discontinued all medicine, giving the milk punch and food.

This patient continued gradually to recover without further medication, and now—

March 7th—Is sitting up, and appears to be entirely well, except the eyes, which are weak, and show a tendency to inflammation.

Case XXIII.—H. J. R., private, aged 19 years, admitted Wednesday, Feb. 4th, 1863. Was taken sick Monday night with chilliness and headache. By Tuesday evening was quite delirious—was treated, principally, before entering the Hospital, with large doses of quinine. When I first saw him, he was quite delirious; pupils contracted; tongue clean and moist; great tenderness in nape of neck and spine. He would cry out violently if any pressure was applied to those parts. Pulse 84, and full. Treatment, wet cups to back of neck; mustard to spine; turpentine enema; hyd. chlor. mit., gr. ii. and half a grain of ipecac. every two hours.

Feb. 5th.—Pulse 90; head thrown back by contraction of muscles of neck. Continue medicine; ice to head and cups to nape of neck.

6th.—Pulse 120, feeble; other symptoms unchanged. Gave half an ounce of whiskey in milk every three hours. Applied cups again.

7th.—Pulse 125. Gave beef tea freely, and continued whiskey and milk. Ordered calomel and quinine, aa gr. ij. every four hours, and applied mustard to spine. This condition continued with very little variation until March 3d, when the mind became clearer, patient less fretful and querulous, and has continued to improve slowly.

Case XXIV.—G. W. M., private, was taken sick on the morning of Feb. 11th, "with nausea, vomiting, headache, and pulse depressed." Came into the Hospital at 6, P.M., almost pulseless, stupid, pupils contracted, skin warm. Applied cups to nape of neck, mustard to spine, turpentine enema; cal., gr. v. immediately, to be repeated at 3, A.M.; half an ounce of whiskey every half hour through the night.

12th.—Pulse 90, stronger; pupils contracted; skin cool; stupid and wandering—complained of head being "big and somebody inside of it." Gave cal., gr. ii., ipecac, gr. ¼, every two hours; half an ounce of whiskey in milk every hour. 6, P.M., no change. 12 o'clock, midnight, several operations from bowels; discontinue cal. powders.

13th.—9, A.M. Pulse 96, stronger. Gave food, and whiskey; slightly salivated. 8, P.M. Rational; answers questions readily and clearly; for the first time is aware that he is in Hospital; pupils respond to light; gums quite tender; salivation profuse. After this, the case slowly progressed, with copious salivation, without other medicine, until now, March 5th, he is entirely relieved from disease.

Case XXV.—P. G., private, aged 28 years, admitted Feb. 22d. He was taken suddenly sick the same morning with headache and pain in back of neck. Pulse 90, and full; tongue clean and moist. Applied cups to nape of neck, mustard to spine, and gave cal., gr. vi. and jalap, gr. x., and ordered six grains of quinine to be given in the morning. Tenderness at back of neck well marked.

Feb. 23d.—Condition the same, and headache severe. Bowels have been freely opened. Gave cal., gr. ii., and ipecac., gr. ss. every four hours, and six grains of quinine at 2, P.M. Applied cups to neck. This treatment was continued until the 28th, when the medicine was discontinued, and the patient is now, March 7th, almost well.

Case XXVI.—F. L. M., private, aged 27 years, admitted Jan.

18th, was taken sick with chilliness the evening previous. When admitted, he was in a state of semi-stupor; pulse 85, feeble; extremities cool; tongue clean. Regarded the case as one of "congestive fever," and applied mustard to extremities, ordered turpentine enema, and quinine, gr. iv., cal., gr. ii., every three hours.

Jan. 19th.—In same condition. Applied cups to back of neck, and ordered quinine, gr. viii., and cal., gr. v., to be given at 9, A.M., 1, P.M. and 9, P.M.

20th.—Bowels not opened. Ordered Seidlitz powders every two hours till bowels should be opened, and quinine and cal. (in same doses as yesterday,) at 3, P.M. and 9, P.M.

This treatment, with nutritious diet, was continued till Jan. 24th, when the patient seemed much better, and medicine was discontinued. In a day or two, pain in head and face supervened, with hebetude of mind and tenderness at nape of neck. His case presented a complication of symptoms; at one time apparently neuralgic, at others the symptoms of inflammatory action of the membranes of the brain would predominate. Used quinine and calomel, as the symptoms appeared to demand, with occasional cuppings to nape of the neck, and counter-irritation to spine, with tonics and stimulants.

March 7th.—At this date he is gaining strength slowly. Mind almost normal, presents the appearance of convalescence. Am now giving him tincture of chloride of iron and extract of cinchona.

The following came under the care of my Associate, Dr. Charles Hadcock, Surg. 8th Mass. Vols., by whom the report of the case is drawn up.

Case XXVII.—D. B. R. came into Hospital Dec. 5th, 1862, in nearly an unconscious state, delirious, cold, breathing heavily, at times excited and incoherent. Pulse 116, small, irregular, unequal; tongue dry, red. The history is that he went to the sink of the Regt., complaining of great pain in bowels, and back of neck and head; there he fainted, but recovered and returned to his tent. Afterwards he had a decided chill, and by the expiration of three or four hours was in the condition represented, and was sent to the Hospital. Spots of *purpura* covered the arms and legs. He got at once, ℞. Camph. aq., spt. nitre, aa ℥ i., with ten grs. sulph. quinine, to be repeated in four hours. Hot applications externally.

Dec. 6th.—Seems warmer. Continue treatment; add stimulants if the surface is cold. Drowsy; rather more consciousness; *diarrhœa.* (Continue.)

7th.—Symptoms of *iritis.* ℞. Anodyne Hoff., solut. morph., aqua camphor., aa ℥ ss. M. ʒ i. every 4 hrs. Continue quinine. Blister to temple, size of a dollar. Chicken tea.

8th.—Continue. No change.

9th.—Pulse 80. Bowels costive. ℞. Fl. ext. senna, ℥ i. every four hours. Spots dark, *sloughing.*

10th.—Bowels moved. Mind clear; cornea opaque, *green.* ℞. Belladonna ointment to *eye-brow.*

11th.—Cornea same; eye not so painful. Improving in other respects rapidly.

12th.—Continue. Very much same.

13th.—Continue. From this date to Jan. 23d, he continued improving; all the indications of cerebro-spinal meningitis disappearing. The iritis has become chronic. Belladonna ointment to prevent adhesion of the iris to lens. Quinine continued, and occasional blister to temple. Vision nearly lost—possibly may return; but under the circumstances, it was thought best to send him North, and he was discharged from the service, March 27th, 1863.

In a future paper, some account of the origin of the disease in question, and the circumstances under which it occurred, will be given.

LARGE GLANDULAR TUMOR REMOVED FROM THE NECK OF A BOY EIGHT YEARS OF AGE.

By D. W. Cheever, M.D.

[Reported for the Boston Society for Medical Improvement, April 13th, 1863.]

This tumor, which was about as large as two closed fists, had existed for twelve months—but had increased very rapidly in size in the last month. As it showed no signs of softening, but was steadily enlarging, and had begun to create dyspnœa by pressure on the nerves and trachea, it was deemed best to attempt its removal. The skin moved freely over it. A number of enlarged cutaneous veins ran over it in various directions. The tumor felt to the touch lobulated and movable, as if made up of an enlarged chain of lymphatic glands. It extended from near the middle line of the neck in front, back upon the edge of the trapezius on the left side, and above, from the lobe of the ear and angle and body of the lower jaw, down to, and beneath the clavicle. The left shoulder was depressed by it. The boy looked otherwise pretty healthy.

March 31st.—He was etherized, and an incision made from just below the ear to near the cricoid cartilage, through the skin and platisma, disclosed a lobulated, hard, glandular mass lying mainly beneath, and partly behind the sterno-mastoid muscle. Contrary to expectation it was found very adherent in all directions, and the lobules bound together by strong, fibrous tissue. Considerable time and care were requisite to divide the adhesions, which were too strong to yield to anything but the edge of the knife. It was found necessary to divide the sterno-mastoid, and dissect aside the external jugular which ran, somewhat displaced, over and through the tumor. The lower edge of the tumor extended beneath the clavicle, into and below the subclavian triangle. The base lay over the sheath of the carotid, which was necessarily exposed about two inches. Continuous dissection was required even to the last adhesion, for they could nowhere be made to yield at all. There was considerable venous hæmorrhage, but very little arterial. The flaps were brought together, and now, one fortnight from the operation, are nearly united, and the boy is doing well.

Under the microscope the tumor was found to be composed of uniform cells, about two thirds the size of the blood corpuscle, filled with from four to six granular nuclei. There were a few spindle-shaped fibrous cells; but no larger cells, or evidence of any malignant disease.

Under these circumstances, I suppose it is to be regarded as a lymphatic glandular tumor of unusual size, and that there is no probability of its recurrence.

RESEARCHES ON HENNA.

THE author, a graduate of the School of Pharmacy of Paris, selected Henna as the subject of his thesis. Henna *(Lawsonia inermis)* is a plant known to the people of the East from the highest antiquity. The leaves are employed either as a medicine or in the preparation of certain cosmetics. Its flowers, possessing equal medicinal virtue, are used as an agreeable perfume. They are sold in Cairo, as the lilac is in Paris.

Henna is common in the East Indies at Malabar, Ceylon, &c., and in Arabia, Persia, and Egypt, where it is very abundant. The author admits of only one species—*Lawsonia alba*, of which there are two varieties, *L. inermis* and *L. spinosa*. The leaves are employed as a topical application to ulcers of the mouth, and for staining the feet, hands, and hair. This use is perhaps less the result of coquetry, than to avoid certain skin diseases so common in hot countries. The leaves are also used for dyeing light-colored woods of a mahogany color. The fruit is considered emmenagogue.

Henna is furnished to commerce in the form of powder. Two sorts are distinguished: *Henna of Arabia*, and *Henna of Egypt*, the latter least esteemed. The former is often adulterated with sand and Egyptian henna, so as to be about equal in dyeing value to the latter.

The author in his chemical examination has aimed at isolating the active coloring principle. Cold water does not extract it, but it is removed by boiling water. Ether does not remove it, but extracts the chlorophylle. Alcohol of 90 per cent. completely extracts it by percolation; and when the alcohol is distilled off from the tincture, the syrupy residue exhausted by ether, and the residue again treated by strong alcohol, and evaporated, the active matter is obtained.

This principle is brown, of a resinoid appearance, and soluble in boiling water. It possesses the properties of tannin, such as blackening the sesqui-salts of iron and precipitating gelatin. It reduces oxide of copper in Trommer's test, and heat decomposes it with the evolution of crystalline needles, which reduce nitrate of silver. The coloring matter of henna is therefore a species of tannin, and the author has named it *henno-tannic acid.—Jour. de Pharmacie.*

Reports of Medical Societies.

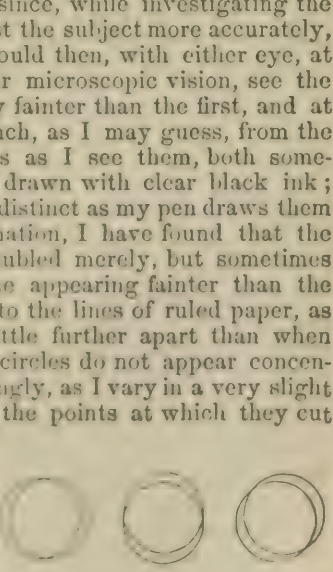
EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

April 13th.—*Double Vision in Both Eyes.*—Dr. Bethune referred to a case of double vision of each eye which he reported some months ago.

A physician of this city, on seeing this case, was struck with the resemblance in some points to that of his brother, a clergyman in the State of New York. Before reading the case, he could hardly believe in the possibility of such an affection, and was inclined to think his brother's complaint an illusion. He requested Dr. Bethune to ask him for some account of his case, which he gives in the following words:—

"In regard to double vision with both eyes at once, I am affected, but not afflicted with it. It occurs at my will, without mechanical pressure, and I am interested, at times, in producing it. But, what is singular, the double images are not parallel. In looking out at my window, I see, at the distance of about 300 feet, the tall steeple of the Baptist Church, about 150 feet in height; and the two appearances incline at an angle of about five or ten degrees. All other objects seen double present the same difficulty.

"Both my eyes are affected with double vision, but never, that I know of, with my glasses on, which I wear in all my waking hours. I made the discovery a year or two since, while investigating the images seen by nearsightedness. To test the subject more accurately, I drew a straight line with my pen. I could then, with either eye, at a distance some inches beyond distinct or microscopic vision, see the line duplicated, the second being slightly fainter than the first, and at a distance of about the fiftieth of an inch, as I may guess, from the first. I draw in the margin the lines as I see them, both somewhat faint, even if the line had been drawn with clear black ink; and the outlines, as seen, are not as distinct as my pen draws them on the paper. Upon further examination, I have found that the line drawn singly does not appear doubled merely, but sometimes tripled and quadrupled, each new line appearing fainter than the others. Lines drawn perpendicular to the lines of ruled paper, as we usually write upon it, seem a little further apart than when drawn parallel to the ruling. Small circles do not appear concentric, but cut one another; and seemingly, as I vary in a very slight degree the point of visual attention, the points at which they cut one another vary; as is shown by the accompanying sketch.



Dr. Bethune said, that reflection on this case had led him to an explanation, which he thinks is the secret of both this and the previous case of diplopia.

It occurred to him that the real cause of trouble is in the adjusting apparatus of the eyes. The lens, by the ciliary nerves and muscle, is adapted for objects at a certain distance. Owing, perhaps, to defective nervous influence, the lens, instead of being retained at its proper position and diameter, is suddenly relaxed, the effort to replace it is renewed, and is attended with a fresh image on the retina, but with such rapidity that the first is not effaced before this is formed. This may be repeated a second or even a third time, producing a third or fourth image.

Bibliographical Notices.

"*Die Auslöffelung des Staars. Ein Neues Verfahren.* Von Dr. Med. Adolf Schuft. Berlin. 1860.

Removal of the Cataract by means of a Curette. A new Method. By Dr. Adolf Schuft.

This is a little pamphlet of 18 pages, in which Dr. Schuft explains his proposed method of removing certain forms of cataract. He commences by saying that he owes the idea to v. Gräfe's linear extraction (Vide *Archiv für Ophthalmologie*, Bd. i., Abt. 2d, pp. 219–236, and Bd. v., Abt. 1st, pp. 158–185). For this operation v. Gräfe used a steel instrument, which is "broader, less concave and somewhat sharper on its end than the common Daviel's curette." Following out this idea still further, Dr. Schuft has succeeded in the invention of a form of curette, or little spoon, of which he has four different sizes, two being mounted on the ends of a handle, similar to those of most eye instruments. They are not unlike a little salt or mustard spoon, made of silver, and vary from about two to four eighths of an inch in length, about one half as broad as long, and one to one and a half lines in depth, curved rather more than a common spoon. An engraving in the original shows this more fully. These, he says, can be used in linear extraction combined with iridectomy for those forms of cataract where v. Gräfe would have considered that the extraction with flap operation was rather indicated. And with them we can remove through a linear wound any lens (linsensystem), whether it is partially or wholly opaque, and whatever its consistency or size, without too great danger to or injury of the eye. The method of operating is as follows. The patient is to be in the recumbent position. An assistant holds the lids, the operator steadies the bulb with a pair of forceps and thrusts a lancet-shaped knife, with straight cutting-edges, into the cornea from the outside, close to its junction with the sclerotic. The knife is to be kept parallel with the iris, and the wound to be enlarged in withdrawing it, so that the cut shall be three lines in length.

A pair of iris-forceps, closed, being now entered through the wound, and then opened, the pupillary edge of the iris is to be seized, drawn out of the wound and snipped off. The capsule is then opened from the inner pupillary edge to the uncovered equator of the lens. This, he says, is best done with v. Gräfe's Flietencystotom. Now, he says, one of his four curettes, chosen according to the size of the lens, is to be thrust into the wound directed towards the centre of the eye till its end has passed the equator of the lens, which now lies pressed forward, then to be passed behind the lens by carrying back the handle as if we would scoop out the lens from the cup-shaped depression (tellerformigen Grube). Having carried the curette so far in, that its centre is opposite to the posterior pole of the lens, all that is held within it is to be carefully brought into the anterior chamber by drawing the curette a little outwards in the direction towards the opening in the cornea, and thereby avoiding the inner portion of the iris. Manipulating in this way, the curette is brought along the posterior surface of the cornea, against which it need not be pressed, unless the lens is quite large and hard. In this way the largest portion of the lens can generally be removed. After this, the lids can be softly rubbed over the cornea, in order to press whatever may remain of the "cortical substance" into the pupil, from which it can be removed with one of the smaller curettes.

Dr. Schuft says: "I would call this method the Auslöffelung (scooping out). And if, now, as we have before said, any lenticular cataract can be removed by this method, no matter what may be its character, then arises the question, for what cases is it preferable to all others, and therefore practically indicated? To this we simply answer, for all cataracts in individuals between 25 and 30 years of age:—

"1st. Whether having a hard, small or large nucleus.

"2d. Or not fully 'ripe.'

"Moreover, in old as well as young patients with

"3d. Cataracta accreta.

"4th. Foreign bodies in the lens, outside of the range of the dilated pupil.

"5th. In exceptional cases, where the rapid removal of a normal lens becomes necessary (extraction of a cysticercus).

"Therefore, I should be govered in my choice of the different operations as follows:—

"The '*discision*' (keratonyxis) as the only method in the cataract of children, except those cataracts which are perfectly and uniformly soft.

"The same is to be advised in retrograde (flattened), unripe, partial, stationary (cortical cataract, schichtstaar), and in traumatic cataract of individuals under twenty years. 'Discision,' with iridectomy, in traumatic and cortical cataracts of elderly people and in cataracta accreta of children. In all other cases in which v. Gräfe would choose this, his own, method, I should prefer the removal with my curette (die Auslöffelung).

"Reclination, in my opinion, should, even as an exceptional method, be entirely given up. The removal with the curette is adapted to all those cases of senile cataract where contra-indications to the extraction by the flap operation would make reclination in place. I consider, therefore, one of the most important advantages of my method is, that it obviates the necessity of reclining, a hazardous operation, and one which, although its immediate result may be successful, yet holds forever afterwards the sword of Damocles over the eye operated upon.

"The linear extraction (von Grafe's operation), in all perfectly soft cataracts, with exception of the retrograde (rückgängigen) where the discision, and the accreta where the linear extraction with artificial pupil would be preferred. Certainty in the diagnosis of the consistency to the exclusion of a nucleus is here, of course, of great importance. Liebreich's side illumination will avoid error. But if, even with this assistance, it should have been overlooked, it can be readily removed with the curette numbered two or four, without pressing on the globe.

"As respects extraction by the flap operation, I would dissuade my cotemporaries from it as an hazardous method, and one which can now be replaced by another, the result of which is equally good, if we overlook the form of the pupil, which may well be done in persons at the age when the nucleus of the lens is hard. I would regard the extraction by the flap operation as an exceptional method, and recommend it only under the following circumstances:—

"1st. Perfectly ripe cataract, with large, hard nucleus.

"2d. Favorable conformation of the eye and its surroundings.

"3d. Control and certainty of the motion of the eye.

"4th. A healthy, strong and quiet patient.

"In closing, I might express the hope that the leaders in ophthalmology will test my method with impartiality, and not be deterred by prejudice from making numerous trials of its efficacy, and then it will soon appear whether following the indications for its use here, the flap-extraction may not be greatly limited and reclination wholly replaced by this 'Auslöffelung.'"

Apparently the wish here expressed by Dr. Schuft has been complied with by Prof. v. Gräfe. In the *Archiv für Ophthalmologie*, 6th volume, 2d part, v. Gräfe gives the drawings of these curettes, which are the same as those in Dr. Schuft's pamphlet. He says there, "I spoke, in my last piece on the 'modified linear extraction,' of the advantage of having a broader instrument than the common Daviel's curette, to push through the cortical substance behind the nucleus and render sure its entire removal." "Dr. Schuft has lately invented a system of curettes, which are intended to accomplish more fully the objects of the linear extraction and thereby insure its success. Although Dr. Schuft will shortly publish in detail an account of his curettes, yet I feel it but right to say a few words in regard to them, as they are likely to be adopted by those who may practise the modified linear extraction.

"The object of Schuft's curette is not to press with it the nucleus of the lens against the posterior surface of the cornea by a sort of lever motion and hold it fixed, but rather to get the nucleus *wholly within* the curette, and so remove it with very slight pressure forwards."

After describing the instrument, Gräfe says: "I have also used Schuft's curette for other purposes. It is adapted to the removal of lens nuclei which have fallen into the anterior chamber after needle operations. Every practitioner knows that from their mobility such nuclei are difficult of removal; moreover, that the lever motion we must make with the Daviel curette against the posterior surface of the cornea is liable to break off portions of the cortical substance, whereby the process of absorption is retarded. This does not occur when this new curette is used. All that falls into the cavity of the anterior chamber can be taken out with safety. I have, moreover, employed it to remove traumatic cataracts in which foreign bodies were impacted, and the removal of the former rendered necessary the making sure of the latter.

"A seeming objection to this instrument is its size, which at first sight is truly startling. Aside from the fact that my experience would do away with this objection, it will also become less by careful consideration. Let the wound be made large enough to allow the lens nucleus to pass through it, and the curette to be used in the special case will also readily go through it without contusion. The form of the curette allows it to embrace the nucleus; it also flattens it somewhat, so that there is really very slight increase of bulk when the two are brought through the wound in the cornea.

"The principal advantage of the instrument is in its completely removing the nucleus of the lens. Suppurative inflammation of the iris and cornea after linear wounds of the latter, is due to the fragments of the nucleus remaining, and of course from the accidental contusion of the lips of the wound by instruments, or a nucleus too large to pass through it.

"As respects the indications for operating, I should not extend those which I have given for the modified linear extraction, in consequence of this instrumental advantage. To insure complete success, the cortical substance must be *soft*. For through *it*, between the nucleus and the capsule, the curette must pass. This is not possible where the cortical substance is compact. The lens will be dislocated, and its removal become either impossible or cause contusion of the iris. The lips of the corneal wound will also be so crushed by such a hard lens passing through it, that the injury will more than counterbalance the advantages gained by this method. There will at any rate a good deal of debris of the cortical substance remain, which, if this is compact, are as injurious as fragments of the nucleus. On the other hand, it must be granted that the corticalis need be but moderately soft to allow of the use of this new instrument, and the nucleus may be of considerable size.

"In conclusion, we disadvise the use of Schuft's curette in simple linear extraction without iridectomy. Where there is no compact nucleus and the iris is left intact, the only object in view is to let the wound gape by proper external pressure. The introduction of a curette is, therefore, useless, and, moreover, injurious, because the iris, pressed towards the wound, will be squeezed and contused."

For the details of von Gräfe's simple and combined linear extraction, we would refer to the *Archiv für Ophthalmologie*, Band 1st, Abtheilung 2d, pp. 219-286; *Ueber die lineare Extraction des Linsenstaars, &c.*; and the same, Band 5, Abt. 1, *Ueber zwei Modificationen der Staaroperation.*

B. J. J.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, APRIL 30, 1863.

INSPECTION OF MILITARY HOSPITALS. SECOND REPORT BY DR. HENRY G. CLARK, INSPECTOR-IN-CHIEF.—This report, like its predecessor, noticed in the first January number of the JOURNAL, and all which have been issued by the Sanitary Commission since its organization, shows well the wisdom of its founders and the faithfulness of its agents. When we call to mind the immense amount of evil incident to the wars of other nations, from which we have been in great part preserved, chiefly through its instrumentality, we cannot express too strongly our impression of the gratitude and support it deserves of the people and government. In none of the wise measures instituted by it and sanctioned by the Medical Department of the Army, has it shown its foresight more fully, however, than in the establishment of a system of inspection of camps and hospitals, the partial results of which we lay before our readers in the following extracts from the abovementioned report, dated Washington, January 21st. Since that time, several medical gentlemen of this city have been absent on similar service in various sections of the country, and others are about to follow.

"Reports have been received from the following gentlemen, viz.:— On the hospitals at—

"Louisville, by Dr. Joshua B. Flint.

"Baltimore, Dr. Edmund Fowler.

"Philadelphia, Drs. A. A. Gould and R. M. Hodges.

"Fortress Monroe, &c., Drs. Minot and Abbot.

"District of Louisville, Drs. Buckingham and Gay.

" Nashville, Dr. W. E. Coale.

" Columbia, Drs. Morland, Foster and Ayer; and they are herewith transmitted.

"They exhibit the faithful industry and intelligence of the Inspectors; and several of them, especially those from New York, by Dr. Winslow Lewis; Philadelphia, by Drs. Hodges and Gould; Nashville, by Dr. W. E. Coale; the District of Louisville, by Drs. Gay and Buckingham; and Fortress Monroe, by Drs. Minot and Abbot: an exactness of detail, and an elaborate completeness, which leave nothing to be desired. Considering the circumstances under which these gentlemen have been called to serve, we may congratulate the Commission certainly on its success in this.

"Although the Inspectors report great defects in some of the hospitals of the Southwest, from the difficulty of obtaining suitable buildings in all cases; from the too small number of attendants, and from the embarrassments of transportation in localities so near to the seat of hostilities, and where so many of the inhabitants are disloyal or lukewarm; their testimony is uniform as to their very cordial reception by the medical directors and the hospital surgeons, who seem not to have lost their equanimity under many trying circumstances, or to have been discouraged by the obstacles and embarrassments abounding in a district in the very focus of the war, and but just relieved from a state of siege, with a very large number of sick and wounded suddenly thrust upon them; and which would have appalled or paralyzed men who were less devoted, less capable, or less courageous than they, but which were proved to be only the stimuli needed to bring into active operation all their best sentiments and energies.

"A few extracts from these reports will best illustrate these statements. They are taken from many others equally pertinent. Dr. Minot says: 'As the result of our tour of inspection, we are much gratified at being able to say, that we have found, on the whole, the hospitals we have visited in a most creditable condition.' 'We were uniformly received with courtesy, and the utmost freedom of inquiry and examination was accorded to us. Feeling that our inspection was, to some extent, a matter of sufferance, we wish to put on record our acknowledgments of the gentlemanly and hospitable treatment that we met with everywhere.'

"Dr. Coale, speaking of one of the hospitals in his circuit, says:—

'I must acknowledge how much I am indebted to the surgeon-in-charge for his carefulness, fulness and minuteness in furnishing me with the required information, and his genial courtesy in doing it;' and of several other medical officers: 'These gentlemen offered me every facility in their power for prosecuting my inquiries, and my relations with them were most pleasant and cordial.'

"As to the difficulties to be encountered and overcome, the following will give us some idea: 'Water has to be brought a mile and a half, from the river.' 'The washing cannot be done for the amount allowed by Government.' 'The medical men are much too few in number, and far too much overworked.'

"'The most urgent and instant want, not only of the places I have officially visited, but of every military station in the West where I have been, is—HOSPITALS. This want was pressed upon me very forcibly, not only by my own observations, but by officers and soldiers, and not less by civilians. Many and bitter were the comparisons made by these several classes of our people upon the different treatment of the East and the West: and I could not deny the justness of their complaints that, while hundreds of thousands of dollars had been spent for hospitals, with all the best means and appliances to boot, for ameliorating the condition of the sick and wounded soldiers in the East, not one cent had been distributed for a proper hospital west of the Alleghany mountains.'* 'In looking back at those pages devoted to what I found at Bowling Green, it will be at once seen that I have not described a single hospital, or a house which could readily be converted into one.'

"The most suitable building at Louisville, the State Blind Asylum, is thus spoken of by Drs. Buckingham and Gay: 'This large four-story building, with a high basement, on high open ground by itself, and furnished with every convenience for a hospital, the best adapted in every respect of any building yet seen, has just been vacated by order of the Secretary of War.' 'It seems wrong that this magnificent building, with all the conveniences for at least four hundred men, which the Government has already spent so much money to protect, and for which damages to the amount of $40,000 have already been claimed, should be abandoned, when it is evident that no damage has been done. Fourteen or fifteen persons, now elsewhere well accommodated, ought not to be permitted to exclude thousands whose comfort and safety can no otherwise be provided for.'

"To show how bravely these discouraging circumstances are met by the medical men, I extract the following passages from the previous report:† 'The surgeon‡ of Hospitals Nos. 2 and 3 (Nashville) had established himself with his patients in two college buildings, which, with the grounds, had until within eight days been a camp for a brigade of cavalry, the horses of which had been even stabled in the buildings. In that time he had policed off 280 loads of manure from the houses and grounds, and deposited them half a mile distant; had thoroughly cleansed the buildings; had brought the water (laying pipes) from a quarter of a mile distant; had found, down in the city, the steam boiler and apparatus used to heat the brick building, brought it up and erected it, much with his own hands; had built two large brick bake-ovens; had built a soap-house, and set up a soap-boiler in it to make all the soap for the two buildings; had built a decent covered privy, 100 feet long; had had all the 455 beds filled with hay: and all this without a requisition (for that would have been useless), foraging for all the material—a necessary step in the condition of Nashville at that time. Surely I never saw more energy and ingenuity crowned by a consummate amount of executive abilities, and all covered under a close garb of modesty.' One other case at Hospital No. 2, Bowling Green: 'The cook was a German, who took great interest in his office, and, under direction of the Surgeon,* made up, with great ingenuity, out of scant and imperfect materials, fancy messes, puddings, &c., for the men. The doctor had erected, by his convalescents, a bake-house, where excellent bread was baked. The iron oven used was made for field purposes, and struck me as being very excellent. I saw nothing like it in the Army of the Potomac. I ought to add, in justice to Dr. S., that he personally retook this on the battle field after it had been captured by the Confederates, who had tried to render it useless by firing shot through it. Where the surgeon had control of the grounds in the vicinity, they were thoroughly policed, and the sinks were provided for, as regards hygiene and decency.'†

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* Since this was written, orders have been issued for the construction of a very large hospital at Nashville, on the plan of the "Chestnut Hill," at Philadelphia.

† MS. Reports, Vol. XV., No. 3.

‡ Dr. Kelly, Assistant Surgeon 1st Wisconsin.

"Considering the West, especially the Southwest, a very important field, and having received no report from Dr. Flint, of Louisville, who had been there inspecting under the appointment of the Committee, I detailed to that region, and to the Nashville district, three very competent Inspectors, on the first of December; and to their reports, from which I have extracted above, I especially refer. I have already arranged for another inspection at these points during the ensuing month.

"I have, in accordance with the announced policy of the Committee, felt obliged to prefer *Eastern* Inspectors for this purpose; and have also, for the same reason, invited our *Western* brethren to inspect at the East. Experience, and the information I have derived from these reports, and from personal interviews with the writers, as well as from the note of the Western Secretary, which your Chairman was good enough to transmit to me, have satisfied me fully of the wisdom of this arrangement. I have, therefore, taken great pains to send into this field, and shall continue to do so, gentlemen from this part of the country, whose general intelligence, weight of character and loyalty, ought to make them anywhere and everywhere welcome.

"We hope, therefore, that this mutual interchange of the Special Inspectors of the General Hospitals of the Army will not only prove mutually agreeable, but that it will tend to foster that true spirit of national loyalty to the Government, which, laying aside personal and local prejudices, should count all men as its friends who in this most effective way have rallied to its support; and that our brethren at the West will not, on that account, receive with the less cordiality those who, like the Magi of old, shall have come to them with their good gifts and the frankincense of good fellowship, from the direction of the rising sun.

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* Dr. Selby.

† MSS. Reports, fol. XV., No. 2.

"The District of New Orleans is the only one which will not be under inspection during the next two or three weeks. This omission is less to be regretted from the fact that, under the energetic administration of the general lately in command of that department, its sanitary condition has been so well maintained that the number of sick there is not very large. I have the offer of an excellent Inspector for that district in the month of April.

"Having found that many of the Inspectors prefer to visit in company, I have, when I have been able to do so, made that arrangement for them; and I am certain that the conjoined observations of two Inspectors for a fortnight are often more satisfactory, for many reasons, than those of a single inspector for a longer comparative period.

"I am happy to be able to say that the knowledge of the confidential nature of our reports, and the certainty that any grounds of complaint stated in them will be made known, first of all, to the head of the medical department, and by him to those whom they most concern; and that our whole desire is to aid, not to embarrass, the surgeons in charge; to improve, and not to criticise, the hospitals; have been sufficient, so far, to make our path of duty not only one of pleasure, but we hope also of permanent future good.

"Very respectfully, HENRY G. CLARK,
Inspector-in-Chief."

THE LATE DR. ROBERT WARE.—The following Resolutions, offered by Dr. J. P. Reynolds, were unanimously adopted by the Boston Society for Medical Improvement, at the meeting on Monday evening last, and ordered to be entered on the Record.

"*Resolved*,—That this Society has heard with deep regret the announcement of the death, at Washington, in North Carolina, of Dr. ROBERT WARE, one of its members.

"*Resolved*,—That Dr. Ware's character and abilities deserve more than a common tribute of honorable remembrance. Well read in his profession, and beyond it; of calm, sound sense; of methodical and untiring industry; with an uprightness and integrity beyond all question; genial and companionable; in a wide practice among the poor, gaining their confidence as few men ever did; always ready to do his share of toilsome work for the general objects of the profession; in the service of his country, winning the warmest praises from his medical associates and superiors; he added to the inheritance of a name honored within these walls and throughout this community the very highest promise of professional success; and it is no injustice to the living to say, that there is not one among the younger members of our profession whose loss would have been more deeply and keenly felt.

"*Resolved*,—That the Secretary be instructed to transmit to Dr. John Ware a copy of these Resolutions, as an expression of the Society's respectful sympathy and esteem." F. MINOT, *Sec'y.*

MESSRS. EDITORS,—Perhaps some of the readers of the Journal may think the following a "*snake story.*" It is really a *worm* story, and a true one, and serves to prove that though our worthy matrons are too much disposed to attribute almost every ailment to worms, they may nevertheless sometimes be right.

Recently I was called to see a little girl, seven years of age, who had been troubled several days with a diarrhœa, attended with considerable pain in the bowels. The tongue was furred, and there were general febrile symptoms. I prescribed for her, and after a few days interval found her materially improved. Her appearance, however, led me to suspect that she might be troubled with worms. I communicated my suspicions to the mother, who unhesitatingly endorsed my apprehensions, and suggested that a younger sister, four years old, might be troubled in the same way. I accordingly prescribed an anthelmintic, and called the day following and found the following results. The older child had passed 78, and the younger 56, of the species termed *ascaris lumbricoides*, making 134 in all. When the mother presented them, cleanly washed, I was not disposed to discredit her statement, as the *pot de chambre*, of full medium size, was literally filled. E. C. Dyer, M.D.

Spencer, April 23, 1863.

Health of Providence, R. I.—Dr. Snow's report for March shows the number of deaths to have been 110—a rate of mortality above the average for that city. Of these deaths, 45 were by diseases of the lungs and throat, 5 being by diphtheria. Since last October, there have been 28 deaths by diphtheria in Providence.

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, April 25th, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - - -	44	46	90
Ave. mortality of corresponding weeks for ten years, 1853—1863,	43.7	37.1	80.8
Average corrected to increased population - - - -	00	00	90.36
Death of persons above 90 - - - - - - -	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
23	5	3	3	0	0	0	2

Publisher's Notice.—Mr. J. G. White, who some time since was furnished with a written authority to act as agent for this Journal, is no longer authorized to act as such, and his certificate has been recalled.

Books Received.—A Manual of Minor Surgery. By John H. Packard, M.D. 12mo. Philadelphia, J. B. Lippincott & Co. 1863.

Journals Received.—The Pacific Medical and Surgical Journal, March, 1863.—Buffalo Medical and Surgical Journal, April, 1863.—American Medical Times, vol. vi., No. xvii.

Married,—In this city, 22d inst., Dr. Thomas B. Drew to Miss Mary H. Mills, both of Plymouth, Mass.—In Providence, R. I., April 23, Dr. A. R. Becker, of New York, to Miss Emily R., daughter of Dr. S. A. Arnold, of Providence.

Died,—At Springfield, Mass., 16th inst., William Bigelow, M.D., late of Bennington, Vt., aged 71 years.

Deaths in Boston for the week ending Saturday noon, April 25th, 90. Males, 46—Females, 44.—Accident, 2—congestion of the brain, 3—disease of the brain, 4—inflammation of the brain, 1—bronchitis, 2—burns, 1—colic, 1—consumption, 23—convulsions, 1—croup, 5—cyanosis, 1—debility, 2—diphtheria, 2—dropsy, 1—dropsy of the brain, 2—epilepsy, 1—erysipelas, 1—scarlet fever, 3—gastritis, 1—disease of the heart, 3—homicide, 2—infantile disease, 2—disease of the kidneys, 1—disease of the liver, 1—congestion of the lungs, 2—disease of the lungs, 1—inflammation of the lungs, 3—marasmus, 1—old age, 2—paralysis, 1—peritonitis, 4—premature birth, 2—puerperal disease, 1—scrofula, 1—teething, 1—tumor (uterine), 1—unknown, 5—whooping cough, 2.

Under 5 years of age, 36—between 5 and 20 years, 9—between 20 and 40 years, 21—between 40 and 60 years, 15—above 60 years, 9. Born in the United States, 65—Ireland, 18—other places, 7.

THE

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SCALY VENEREAL DISEASE.

(Syphilis Squamosa, Scaly Venereal Disease [Carmichael,] Syphilis Cornea, Lepra Syphilitica, Psoriasis Syphilitica.)

[By Dr. Zeissl, Professor at the General Hospital at Vienna. Translated for the Boston Medical and Surgical Journal from the Allgemeine Wiener Medizinische Zeitung, Nos. 38–39, 1862, by B. Joy Jeffries, M.D., Boston.]

If we consider the scaly venereal diseases as genuine affections of the skin, we must recognize a pityriasis syphilitica, and perhaps, also, an eczema syphilitica squamosa. These are not, however, distinct elementary forms of disease, but rather transmutations or stages of distinct syphilitic affections of the skin. Thus, an accompanying symptom of syphilitic erythema is a branny desquamation on the head, like pityriasis. So, also, a branny defurfuration is seen on the haired portions of the face after syphilitic impetigo on this part. The miliary papular syphilide, also, when it runs an acute course, is followed by copious defurfuration. Hence it is evident that the form which has been called pityriasis syphilitica may be equally the sequela of various syphilitic affections of the skin, just as occurs in the common diseases of this organ. Moreover, the eruptions deeply implicating the cutis, as ecthyma syphiliticum, rupia syphilitica, cause a constant desquamation over the cicatrices so long as these latter retain any color.

As respects psoriasis syphilitica, we think the same must be said of it, as a distinct form, as was remarked of pityriasis syphilitica; namely, that we can recognize no syphilitic affection of the skin that may be considered as originally dependent upon a degeneration of the epidermal layer, as hypertrophy of the epidermis, or as scaly tubercles. That which from analogy is generally called psoriasis syphilitica, is nothing else than a papule or a tubercle in the stage or process of desquamation. That the psoriasis syphilitica, which is also known by some authors as lepra Willani, is but a metamorphosis of another syphilide, follows from the fact that all authors agree in this psoriasis gyrata or lepra syphilitica being an old recidivate syphilis; that is, developing on such persons who have formerly exhibited papules or tubercles. Now if these papules or tubercles are grouped in a circle and desquamate, or abort by not fully developing, they will thus form a scaly ring in the form of psoriasis gyrata (lepra syphilitica).

Those affections of the skin accompanied by abnormal formation of epidermis on the palms and plantar surface of the feet are more worthy of the title of psoriasis, and have always been designated as psoriasis syphilitica palmaris and plantaris, because they in the course of their development, and after long continuance, give rise to continued formation of scales. But, as we shall soon show, these affections are only macular or papular eruptions in the process of metamorphosis.

Psoriasis syphilitica palmaris or plantaris is developed thus: on the vola manus or planta pedis appear circular, faint reddish-colored spots, the size of a linseed or a pea, which gradually rise slightly above the surface. The pale or rosy red of the eruption becomes slowly brownish. After this pale reddish color, which marks the stage of hyperæmia of the affected portion, has disappeared, and the brownish-red color fades, the thickening of the epidermis commences, which then so resembles a callus that the patient for a long time imagines that it was caused by pressure with a knife or some other instrument or implement. This callus is, however, either gradually spontaneously thrown off or removed by the patient.

Examining this callus a little closer, we find it composed of a mass of horny, shrunken epidermis, with an amorphous exudation on the surface lying next the cutis. After removing the callus, the skin underneath appears thinned, deep red, stamped out, as it were, with an edge of undermined epidermis, and the surface covered with a very delicate epidermal layer.

If we regard this phase as the second stage of psoriasis syphilitica palmaris or plantaris, then this affection of the skin may be considered as having a first stage when there is thickening, and a second when there is thinning of the epidermis.

The efflorescence just spoken of has not, however, always a circular form, which is explainable by the anatomical character of the skin of the vola manus and planta pedis. On all other portions of the body, exudations which form efflorescences on the skin are mostly deposited in the sebaceous glands, and so, as it were, cast in a mould, taking necessarily the circular form of the follicle. On the palm and sole of the foot, from the absence of sebaceous glands, this cannot take place, and the exudation is deposited indiscriminately between the cutis and the epidermis. Perhaps, also, the greater adherence of the cutis to the underlying fascia, and the thickness and want of elasticity of the epidermis, may contribute in mechanically compressing the efflorescence.

Appearance of the Eruption on the Vola Manus and Planta Pedis.—In most cases only ten, twelve or fifteen spots show themselves at the commencement, and these are evenly distributed over the palm.

Course.—In some cases psoriasis palmaris or plantaris may heal spontaneously, without the assistance of art, both in its first and its second stages; in the former by the exudation being absorbed, and in the latter by the epidermis assuming its normal character through regeneration. In most cases, however, new eruptions take place in the neighborhood of those already desquamating, the exudation continuing to be deposited upon those places where exfoliation is going on. Hence several papules join and thereby alter the form of the efflorescence, assuming more and more the circular shape. Further than this, the exudation collects and exfoliates in thicker and thicker layers, especially in the furrows of the hand and the sole of the foot, producing fissures, which have long had the name of "rhagades syphiliticæ," from the Greek word *ράγας* (fissure, cleft). These are troublesome to the patient, because they cause pain and bleeding at every motion of the part. The longer psoriasis palmaris and plantaris exist, the more the disease spreads laterally.

Accompanying Symptoms.—Psoriasis palmaris and plantaris occur, in most all cases, in company with erythema syphiliticum maculosum, or maculo-papulosum and the papular syphilide. When erythema syphiliticum maculo-papulosum reaches to the wrist, the above-mentioned commencement of psoriasis palmaris always appears upon the palms. In the chronic papular syphilide, psoriasis palmaris generally occurs when the papular syphilide has entered upon its second stage of eruption, that is, has begun to recede.

The fact that so great a difference exists between the eruption on the wrist and the palm, would show that psoriasis palmaris and plantaris is simply a form due to the locality, just as we have explained in respect to the moist papules in the papular syphilide. Psoriasis palmaris and plantaris is the repetition of the same elementary process which takes place on the rest of the general integument of the body, and which is only altered by the anatomical character, the greater adherence, firmer consistency and want of elasticity of the skin. Just so the flat condyloma resembles, from its greater development in the abundant cellular tissue of the affected part, a papule on other portions of the body. We may, therefore, consider psoriasis palmaris and plantaris simply as an abortive development of the papular syphilide.

The chief reason why psoriasis palmaris and plantaris have been and are considered as substantially syphilitic affections, may be sought for in the fact that they last a much longer time than the accompanying symptoms on the skin; for the absorption of the exudation and restitution of the epidermis takes place much more slowly on the palms and soles of the feet than on other portions of the common integument.

Besides occurring with syphilitic erythema and the papular syphilides, psoriasis syphilitica sometimes also accompanies acne and varicella syphilitica, although we ourselves have observed this but very rarely. There is generally a considerable loss of hair with individuals suffering from psoriasis palmaris and plantaris, and onychia syphilitica is also associated with the latter.

Besides the above-mentioned psoriasis palmaris and plantaris, which we may regard as a maculo-papular form, we believe we should mention a rarer form of syphilitic affection of the skin of the vola manus and planta pedis. This consists, namely, in a diffuse, evenly-distributed, sudden, horny transformation of the upper layers of the epidermis, whereby these portions of the skin present a very peculiar appearance, as if the affected epidermis had changed into a fine dullish-white silver brocade.

As to the relative frequency of this affection on the palm and sole, we think we may state that it in most cases occurs at the same time on the vola manus and planta pedis. In many cases, however, it appears only on the palm, and in rare cases on but one hand or one foot.

From our experience, psoriasis palmaris and plantaris must always be considered as the symptom of acquired syphilis. We have never had an opportunity of witnessing it in the new-born infant.

Differential Diagnosis.—Here we would warn against diagnosticating, like a fortune teller, any slight epidermal thickening on the palm or sole of the foot, at once as a syphilitic affection. This is a mistake that not only occurs in the routine of practice, but is also made by men of scientific attainment, and not seldom to the detriment of the patient. Fallopius's saying, "*quoties ego video rhagades in manubus, indicium certum profero gallici,*" is a very doubtful maxim, and one liable to give rise to many errors of diagnosis.

Psoriasis syphilitica palmaris and plantaris are most frequently confounded with psoriasis vulgaris palmaris and plantaris, as also with common eczema of the palm and sole. Common psoriasis on these parts differs from the syphilitic by causing larger, more separated plaques. The affected portions of the skin, when freed from the scales, moreover, have a more bluish-red color, whilst the syphilitic has, as is well known, a coppery red. The epidermal scales of psoriasis vulgaris are much whiter, and more difficult to remove, than those of psoriasis syphilitica. The syphilitic scale represents a thickened epidermal lamella, whilst the other is more like an agglomerate of diseased epidermis cells. The centre of the psoriasis vulgaris scale is raised, but that of psoriasis syphilitica is depressed. Common psoriasis of the palm and sole is always associated with general psoriasis, so that we shall scarcely find a patient with the former who does not exhibit psoriatic plaques in the neighborhood of the knee-pan or elbow, whilst the syphilitic form on the vola manus and planta pedis may occur either alone, that is, after the maculo-papular syphilide has disappeared from the rest of the body, or in connection with other syphilitic affections of the common integument, the mucous membrane, the glands, or of the bones.

Eczema palmare differs from syphilitic psoriasis palmaris in that it causes varying appearances on the epidermis of the hand, according to the particular stage of the eczema. If the eczema palmare is still recent, we find scattered, or grouped, hyaline vesicles, whose contents are gradually absorbed or evaporated, whereby the former epidermal covering of the vesicle becomes a thickened parchment-like scale of epidermis. If the fresh eczema vesicle is pricked or scratched off, a gummy fluid exudes, whilst the exudation of psoriasis syphilitica is always dry. These dried masses of eczematous exudation when grouped together, partly composed of old cast-off epidermis and partly of the now dried fluid, form a yellow, thickened epidermal plate covering the affected part, and are easily removed. Examining such an epidermal lamella we find on the surface towards the cutis the marks of the former vesicles, a sort of negative impression of the latter. Underneath the layer, when removed, is a very delicate new epidermic sheet, of a rose or else deep-red color, that in a few days is covered with a new eruption of vesicles. Such groups of vesicles may naturally, when in large numbers and becoming confluent, cover the whole palm, and by continued exudation produce such a thickening of the epidermis, that from its consistency and color it may be best likened to a mummified parchment-like rind. The color of this epidermis often resembles that produced by nitric acid on the latter. As respects locality, syphilitic psoriasis palmaris more generally affects the middle of the palm, whilst eczema palmare occurs on the radial and ulnar borders. Moreover, in eczema palmare we generally find eczema vesicles on the interdigital surfaces or backs of the affected fingers, which is not the case in psoriasis syphilitica palmaris. Finally, no eczema causes such an itching during its origin as eczema palmare and plantare, so that the patient is not content to scratch the part with the nails, but endeavors to appease the desire by rubbing against the most sharp-pointed objects, and thus wounding himself.

Psoriasis palm. syph. maculo-papulosa always begins with dark-red spots the size of a linseed to that of a pea, leaving, after they have faded, an epidermal thickening of corresponding size. This horny epidermis thickens more and more, the central portion as large as a pin's head is thrown off, so that we have a disk of epidermis with a hole in the middle. Underneath this, when it is either thrown off or forcibly separated, lies a thinned, coppery-red-colored epidermis, surrounded with an undermined border of the same, marking the sound from the diseased part. Such thickening and thinning of the epidermis may unite, and so, especially in the folds of the palm, form furrows or cracks in the skin. Notwithstanding this peculiar degeneration of the epidermis there is no itching caused by it, and hence the patient does not feel impelled to scratch the part.

Besides these local appearances, the accompanying symptoms of this affection that point to syphilis must be noticed, and we shall seldom find a psoriasis palmaris or plantaris syph. without more or less loss of the hair, and a diseased condition of the finger or toe nails. Moreover, there will be noticed on the rest of the general integument or on some portions of the mucous membrane, plaques muqueuses in different stages of development.

In many cases the occupation of the patient might assist the beginner in his differential diagnosis, as in the eczema of the washerwomen, the so-called psoriasis of the washer-woman, or eczema of the bakers (scabies pistorum).

Prognosis.—As respects prognosis, it is the same in all the syphilides, only that one cannot insure against a relapse or an increase of the constitutional affection.

Psoriasis palmaris and plantaris syphilitica must, however, be reckoned amongst the most stubborn forms, both on account of their long duration and their resistance to treatment, and the physician must therefore expect a hard struggle. The erythematous or papular syphilide on the other portions of the body may fade within ten or twelve days, whilst this epidermal thickening of the palm often shows no sign of involution after weeks of treatment.

Psoriasis palmaris is in so far a good omen for the patient, as it represents the dry syphilides and thus relieves the fear that there is anywhere dangerous suppurative softening of the more important organs, for example, exudation in the pupil, or under the periosteum or in the bones.

ON GOLD DUST AND IRON FILINGS, AS AN ANTIDOTE FOR CORROSIVE SUBLIMATE.

By Christopher Johnston, M.D., Baltimore, Md.

In the year 1841, a rejected lover, at that time a visitor in Baltimore, committed suicide by taking a large dose of the corrosive chloride of mercury. The case fell into the hands of Dr. Thomas H. Buckler, who employed, unavailingly, all the known antidotes for this destructive agent, and had the misfortune to see his patient die in great agony. The failure of art to relieve made a strong impression upon Dr. Buckler, and he forthwith instituted experiments with the view of ascertaining by observation the efficacy and value of the various articles used or proposed to counteract the poisonous effects of the mercurial salts.

In the course of these experiments upon pigs and dogs, it occurred to him to magnify the *galvanic test* into an antidote—for, said he, if the corrosive chloride in solution, being placed on a bright gold surface, and touched with an iron point which is also brought in contact with the gold, undergoes decomposition, there is no reason why gold and iron in the form of powder, as exposing great surface, should not also separate chlorine and mercury in combination in the living stomach. Besides, the elements are instantly appropriated by the antidotal agents, "the mercury attaching itself to the negative electrode, namely, the gold, while the chlorine unites with the iron of the positive electrode to form chloride of iron; and thus, for a highly dynamic substance, we substitute a comparatively inert amalgam of gold and a harmless chloride of iron."

Accordingly into the stomach of pigs and dogs he introduced poisonous doses of the corrosive chloride of mercury, taking care to control the œsophagus; and then, after various intervals, he passed an estimated quantity of gold dust and iron filings into the stomach of a portion of the animals. All the poisoned animals which had not received the antidote became the victims of the experiment; and of the others, those only died which had presented very severe symptoms before the administration of the remedy.

These results were published by Dr. Buckler in the Baltimore *Medical and Surgical Journal* in 1843, with a recommendation, by the author, of the *new antidote* which he proposed. But the suggestion seemed to have received no attention whatever, until, in the last year, a case of corrosive sublimate poisoning occurred to us, in the which we essayed for the first time gold dust and iron filings upon the human subject.

We had had the good fortune to witness a repetition of Dr. Buckler's experiments, and were familiar with his views in respect of the agency at work; so that we only awaited a fitting opportunity for testing the value of our friend's proposition.

On the 14th of May last, a gentleman of this city, being disturbed in mind, procured two drachms (ʒ ij.) of corrosive sublimate from an apothecary, assigning as a reason his intention of destroying rats; mixed two-thirds of the salt with whiskey and water and swallowed the whole at a draught, leaving no dregs in the tumbler. In about ten minutes his wife, hearing efforts at vomiting in her chamber, proceeded thither, and found her husband sitting up in violent and agonizing emesis. A word and the fatal paper satisfied her as to the danger of the sufferer; whereupon she despatched a messenger for medical aid, but administered the while milk and white of egg, having in a previous marriage been the observant wife of a physician.

In five minutes—it so happened—we were at the bedside, and the galvanic antidote being present in our mind, we sent in haste for two drachms of iron by hydrogen, and a book of gold-leaf. While waiting for the arrival of the articles we encouraged perseverance in the use of albumen and milk, but the patient continued to vomit freely, violently, and unintermittingly. Everything swallowed was rejected as soon as it approached the stomach, and then, after sturdy efforts, small quantities of greenish mucus, streaked with blood, were discharged. The face was much congested, the body cold, and the whole surface bedewed with sweat.

In less than ten minutes (in all, somewhat short of twenty-five minutes from the ingestion of the sublimate) we had prepared a bolus by dusting the surface of a leaf of gold with the iron, over this another leaf, then iron, and so on, alternating the two metals until about one half of the gold-leaf had been expended, and the mass was rolled into a ball.

Before swallowing this, however, we administered warm water to effect the removal of mucus, albumen, and milk, should any of these matters be in the stomach, as they must defend the sublimate from the action of the antidote by preventing contact. Instant emesis followed.

The bolus was readily taken into the stomach, aided by a little water, for the poisoned man regretted his act, and wished to escape from death. For five minutes there was a calm, during which we made another bolus with the remainder of the gold-leaf and iron.

Vomiting now recurred, but with less violence, and the matters ejected were tinged with yellow or light brown, and contained particles of gold-leaf.

Presently another moment of quiet occurred, which was the signal for the administration of the second bolus. Vomiting now ceased entirely, although at intervals for an hour a slight tendency towards emesis was observable—but the frantic, tremulous anxiety, had given place to confidence and composure—the man had assumed a hopeful appearance, and we were of opinion that the first—the greatest danger—was past.

On the next day, moderately severe ptyalism manifested itself; but the convalescence was rapid, and the cure was complete in about eight days.

The after-treatment, when vomiting was arrested, was very simple, consisting of hydrocyanic acid in mucilage with small doses of morphia; mucilaginous drinks, as of gum Arabic, or quince seed, were directed; and beef-tea and arrowroot were the essential articles of diet for some days. Rochelle salt dissolved in soda water was given on the first days, and counter-irritation over the epigastrium practised from the beginning, and continued until all signs of gastric disturbance had disappeared. And, to conclude the statement, the mouth symptoms were met by gargles of tinct. perchloride of iron largely diluted with water, alum in infusion of sage, and lastly, flaxseed tea acidulated with lemon.

We would not insist upon the superior efficacy of gold-leaf and of iron by hydrogen over gold dust and fresh iron filings—although in the case reported the virtue of the former was apparent to and acknowledged by all the witnesses—for we have still a preference for the latter, on account of the freshness of the metallic surfaces. But in the hurry of the moment, the first mentioned may be easily obtained in a state of preparation excepting on Sundays, and then even a dentist would furnish gold-foil, No. 4 or lighter, which would supply the place of gold-leaf. If the conveniences were at hand, or, if we were near a pharmaceutist's, we would prefer to grind gold-foil with fresh iron filings in a mortar, and exhibit the coarse powder so produced with a little water; for the heavier particles would more quickly find their way to the mucous coating of the depending portion, while enough of the finer particles would distribute themselves throughout the stomach to accomplish the destruction of the corrosive chloride not in contact with the mucous membrane.

With regard to the quantity and proportions of gold and iron to be administered together as an antidote for the corrosive mercurial salt, it is desirable to know approximately the amount of the poison taken: but this is not indispensable, for an overdose of the remedy would occasion no "unpleasant" consequences. Lest an insufficient quantity of the metals be exhibited, a reference to the table of equivalents is necessary. As for mercury and gold there is much discrepancy among authors, but if we adopt for Hg 100.1 (Erdmann) for Au 196.44 (Berzelius), for Fe 28.04 (Erdmann) and for Cl 35.5 (Berzelius), we have for corrosive sublimate the formula $HgCl$ $(100.1 \times 35.5) = 135.6$, and 100 grains would contain Hg 73.82, and Cl 26.18. Now, since the corrosive sublimate in the presence of gold and iron is reduced, and there are formed an amalgam of gold and sesquichloride of iron, we must know how much iron is needed to make that compound with Cl 26.18. The formula for the sesquichloride is Fe_2Cl_3 $(56.08 \times 106.5) = 162.58$; therefore in 39.96 grains we have Cl 26.18 combining with Fe 13.78, the quantity sought.

Again, to estimate the gold, assuming the amalgam formed to be in equivalent proportions, we find $AuHg$ $(196.44 \times 100.1) = 296.54$; and in 218 grains we discover 144.86 grains of the precious metal, and 73.82 grains of mercury. Or, if we employ the equivalents adopted by Cahours, thus, Au 98.18 (not far from Graham, Au 99.6) and Hg 103, we have 140.92 grains of amalgam yielding 67.10 grains of gold. In short, we need 144.86 grains of gold (or else 67.10 grains) to appropriate the mercury liberated by the action of the reagents. This discrepancy is not likely to lead to ill results, for, if we use the larger number, we might be quite at ease about the amalgam produced, and it is not certain that the lesser quantity would contribute to form an amalgam more nocuous than the other.

To sum up: For 100 grains of the corrosive sublimate of mercury taken, there would be required of iron 13.78 grains, or rather less than the one-seventh part by weight, and of gold dust 144.86 grains, or about one-and-a-half times the weight, to effect the decomposition of the poison and the complete appropriation of its elements. If we follow Cahours we need only employ 67.10 grains of gold.

In conclusion we would remark, that very large doses of the antidote must be rarely needed, since vomiting, which marks the earliest effects of the corrosive chloride of mercury, necessarily rids the stomach of some portion of the destructive agent.—*Am. Jour. of the Medical Sciences.*

EXPERIMENTS ON THE INFLUENCE OF OZONISED AIR UPON ANIMALS.

By W. W. Ireland, M.D., Edinburgh.

The first means used to produce ozone was by burning phosphorus in closed vessels. The gas was then passed through water, in order to get rid of the phosphoric acid. This, however, did not separate it completely: the air was still charged with the white vapors of phosphoric acid, which, of course, would tend to vitiate the experiment. Moreover, by producing ozone in this way, the relative proportion of oxygen to the nitrogen in the included air was notably diminished by the large amount of oxygen taken up in the oxidation of the phosphorus. I then tried another way to procure ozone—two parts of powdered hypermanganate of potash with three parts by weight of sulphuric acid were introduced into a glass bottle. The sulphuric acid acts slowly on the hypermanganate, setting free some of its atoms of oxygen in the form of ozone, which is thus added to the enclosed air. The permanganate of potash and sulphuric acid were introduced successively into a glass bottle, the cork of which was fitted with two tubes; one of these communicated with a smaller double-necked bottle containing water; the second neck gave passage to a tube which communicated with the spout of a glass jar. This jar had a short broad neck and a large wide shoulder, which became like a balcony when turned upside down in a plate of water. This jar received the ozonised air when pushed through the water, which was done by a pair of bellows communicating with the other cork tube of the first bottle. If the action was allowed to go on too rapidly, the ozone became mixed with a violet-colored vapor,* which, after some days' use, gave a rose tint to the pipes down nearly to the water, but not to those that received the ozone after passing through the water, which ozonized air, as before said, was collected in a jar turned upside down in a plate with water slightly heated.

The animal introduced took refuge from the contact of the thin stratum of water into the shoulder of the jar. In all the experiments, save No. I., hypermanganate of potash was used.

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* No doubt the same mentioned by Berzelius as produced by the action of sulphuric acid on hypermanganate of potash at a temperature of 130° Centigrade, and found to be a mixture of permanganic and sulphuric acids. Professor Fresenius, to whose kind advice and encouragement I owe much, approves of my apparatus, but remarks that, to purify the produced gas, "tubes filled with powdered pumice-stone are more efficacious than water alone." I imagine, however, that the professor refers more particularly to the ozone produced by phosphorus.

Experiment I.—A mouse exposed to ozonised air for one hour—very much excited, leaping and running about—did not appear much diminished in vigor at the close of the experiment, but gradually became weaker, and died in about an hour and a half after being withdrawn.

Experiment II.—3½ grammes of hypermanganate of potash.—A mouse kept in one hour—respiration accelerated—much excited—leaped and ran round about the jar; when taken out, strong enough to try to escape—warmed, and offered food—died in about ten hours after, of gradual exhaustion.

Experiment III.—3½ grammes of hypermanganate used.—A frog kept in for two hours—respiration accelerated—eyes fixed and starting—no excitement; seemed exhausted, but recovered quickly, and did not appear to be the worse next day.

Experiment IV.—3½ grammes.—A sparrow shut in half-an-hour—passed the stream of ozonised air through fresh calves' blood instead of water; it caused the blood to coagulate a little more quickly, but had no other visible effect. The respiration of the sparrow became hurried; it looked pert and bold and much excited, but soon became exhausted—number of respirations increased by somewhat less than one-third. The little animal seemed much fatigued when let out, but quickly recovered. The same sparrow was introduced next day—did not appear so readily affected as before, and was allowed to escape.

Experiment V.—3½ grammes.—A sparrow shut in one hour—great excitement—respiration accelerated by one-third—symptoms of sinking, with occasional convulsions; very much exhausted when taken out, but recovered in an hour or two. The sparrows recovered better than the mice, probably owing to the greater extent and activity of their respiratory apparatus.

Experiment VI.—3 grammes.—A mouse; at first seemed exhilarated—respirations short and quick, difficult to count. In an hour appeared weak and exhausted, but excitement increased—running and leaping about. In three hours it died in the jar.

I examined the bodies of the three mice that died; the venous blood appeared to be lighter in color than usual. In No. II. the lungs appeared to be congested, but pieces of them floated in water; the hearts still contained blood. No other changes could be made out, so I determined on an experiment with a larger animal.

Experiment VII.—5 grammes.—A rabbit shut in a hermetically-sealed box with two little glass windows—respiration accelerated exactly one-third—no excitement observable; temperature before being put in 36 deg. Centigrade, but temperature only 31 deg. When let out surface felt warm, and it ate the very moment it was out. Kept two days longer under observation; it appeared to be quite well.

Experiment VIII.—12 grammes.—A rabbit kept in four hours—

respiration much accelerated—no visible excitement, save a very little which appeared towards the end—evidently did not suffer much uneasiness. When let out, dull and exhausted, but able to walk—stunned with a blow on the back of the neck, thorax opened, heart still beating—blood coagulated instantaneously in the pericardium when the aorta was cut—clot very firm and tenacious. A little more blood collected in a shallow dish coagulated at once. Arterial and venous blood retained their distinguishing hues—perhaps venous blood a little redder, but I could not be certain. No other changes noticed—stomach, intestines, and bladder full. Portions of the blood, brain, lungs, liver, kidneys, and contents of stomach, put into closed phials, and tried with the ordinary ozone test-paper as well as that of Houzeau, but no ozone could be detected save in the lungs, and a trace in the contents of the stomach.

These, as might be expected, resemble the results of the exposure of animals to oxygen gas, which, however, is described as bringing on comatose symptoms, and, when the animals are withdrawn, as leaving less deleterious after-effects than in Nos. I. and II.

I never observed any coma, and I failed to produce "bright scarlet blood in the veins"* with ozonised air as has been done with oxygen.

These experiments were most carefully performed, and all sources of complication avoided as carefully as possible; and, as I felt satisfied of their correctness, I saw no reason to sacrifice the lives of more animals in repeating them. I submit to the reader the following conclusions:—

I. Ozonised air accelerates the respiration, and, we may infer, the circulation.

II. Ozonised air excites the nervous system.

III. Ozonised air promotes the coagulability of the blood, probably by increasing its fibrin. In the blood, however, ozone loses its peculiar properties, probably entering into combination with some of the constituents of the circulating fluid.

IV. Animals can be subjected to the influence of a considerable proportion of ozone in the air for hours without permanent injury; but in the end ozone produces effects which may continue after its withdrawal and destroy life.—*Edinburgh Med. Journal.*

HYDROPHOBIA.—Prof. Renault caused 131 dogs to be either bitten by mad dogs, or inoculated with their saliva. Of these, 63 showed no symptoms during a period of four months, and were therefore considered free. Of the remaining 68, 31 became mad after the 40th day; 23 after the 45th; 16 after the 50th; 14 after the 55th; 12 after the 60th; 8 after the 65th; 7 after the 70th; 3 after the 80th; and one upon the 118th.—*Lancet.*

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* Carpenter's Physiology, 1853, p. 543.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BERKSHIRE DISTRICT MEDICAL SOCIETY.

BY FRANK A. CADY, M.D., SECRETARY.

The last regular meeting of the Berkshire District Medical Society was held at Pittsfield, in the Chemical Hall of the Medical College, March 25th, 1863, Dr. Adams in the chair. The record of the previous meeting was read and approved.

The report of cases being called for, Dr. Smith, of Pittsfield, reported a case of pneumonia, followed by pleurisy. Maj. G., 95 years of age, was attacked (Feb. 20th, 1863) with congestion of right lung—pain, in same side, dry cough, difficulty of breathing, together with some fever. The symptoms increased in severity, and Dr. S. was called Feb. 23d, and, upon examination, found dulness on percussion over the whole of the right side. No respiratory murmur could be detected in the right lung; pulse 120 per minute, hard and full; great heat of surface; face livid and skin dry. At this time cerebral disturbance was manifested, which, with the other symptoms, continued five or six days, but finally yielded to treatment, and convalescence was established on the sixth day of treatment and ninth day of disease. The patient continued to improve, the respiration becoming more free and natural; the expectoration changed from tenacious and bloody to the cream-colored expectoration characteristic of the third stage. On the eighteenth and nineteenth days of the disease, he was able to walk about his house. On the evening of the nineteenth day he was attacked with pleurisy; pain in the side, increased frequency of pulse, loss of appetite, renewal of the febrile disturbance, with great prostration. These symptoms, to which were added hurried respiration and muttering delirium, continued to increase in intensity until March 24th, when he died. The treatment during the attack of pneumonia was, counter-irritation of the surface, antimony, veratrum, mild alteratives and expectorants. The same treatment was continued, through the pleuritic attack, with the exception of antimony and veratrum, and in their places iodide of potassium and stimulants. Dr. S. said that the remarkable features of this case were—the rapid and complete recovery from the pneumonia in a man of his age, and the utter prostration which supervened upon the pleuritic attack.

Dr. Childs referred to the case of phlegmasia dolens reported at the last meeting; the case was well marked and more than usually severe. The patient had entirely recovered. The treatment had been chiefly constitutional, and he believed that all local measures were of but little service when used alone. In his experience, depurative and supporting measures had insured the best success, and all antiphlogistic means had been contra-indicated.

Dr. Green remarked, that in the discussion upon phlegmasia dolens, it was interesting to inquire whether the different methods of treatment did not all point in the same direction, viz., to a local inflammation associated with constitutional depression. He believed the disease to be essentially *phlebitis*, commencing in the uterus and extending through the uterine plexuses to the iliac and femoral veins. Dr. G. had always found, upon examination, in the early stages of the disease, the uterus hot, swollen and tender, and had obtained marked relief and great improvement from scarification of, or the application of leeches to, the os uteri daily. He had seen the disease twice in non-puerperal women, both suffering from uterine disease; once in a man, with enteric typhus. He always combined, with the local treatment, alterative and supporting constitutional measures.

Dr. ALLEN reported a case of peritonitis followed by ascites. The patient had been twice relieved by paracentesis. The ascitic effusion still continued, and the result was yet doubtful.

Dr. RANSOM reported the following case. Was called, Feb. 1st, 1863, to see Mrs. F., 36 years of age, who complained of vertigo, from which she had suffered several years, and which she supposed depended upon some disease of the heart. She had leucorrhœa constantly, and had, at various times, suffered from uterine hæmorrhage. The bowels, for many years, had been obstinately constipated, and she had suffered more or less from indigestion. Nothing abnormal could be detected, either in the respiration or the sounds of the heart. Under treatment the symptoms were relieved, and she continued to improve till the middle of the month, when these symptoms returned, to which were added nausea and vomiting to such an extent that she was unable to take or retain much nourishment. Her cough became more troublesome, and the dyspnœa, which had existed from the first of the attack, now became so great that she was unable to assume the recumbent position. These symptoms grew more and more distressing till the 3d of March, when she died. Autopsy twenty-four hours *post-mortem.*—The surface was unusually livid. On opening the thorax, the lungs did not collapse, were œdematous; floated when placed in water, and in color resembled the lungs in the third stage of pneumonia. Fatty degeneration had taken place to a considerable extent on the right side of the heart; in other respects this organ was normal. The liver presented the condition known as "nutmeg liver." The kidneys were slightly congested, and, on the removal of their proper capsule, had a granular and fatty appearance. The stomach gave evidence of recent inflammation. The mucous coat was softened and easily separated.

Dr. DEMING reported several cases of scarlatina which had occurred in his practice during the past month, four of which were followed by dropsical effusion. In all these cases the urine had been highly albuminous.

Dr. CADY presented a fibrous tumor, with the following history:—Mr. L., 33 years of age, by occupation a dyer, discovered, some time in November, 1861, a hard tumor, nearly round in form, situated about three inches above the umbilicus. When first noticed, it was perhaps one inch in diameter, almost immovable, not adherent to the integuments, nor was there any discoloration upon the surface, or any sensation of pain, except upon severe pressure. It did not increase perceptibly for two or three months, after which time it "grew slowly" for about seven months and became more painful upon pressure; the surface irritable, and the vascularity considerably increased. During this time the patient had continued his occupation. The tumor now (Sept. 18th, 1862) began to increase more rapidly in size, was becoming still more sensitive to the touch, and the slightest friction from the clothing caused oozing of blood from the apex. It went on thus, with a constantly increased rapidity of growth, the pain and tenderness becoming more exquisite and the hæmorrhage in greater abundance, till Oct. 22. 1862, when, upon making some slight exertion, he had a severe arterial hæmorrhage, the blood escaping *per saltum*, and producing approaching syncope before it could be arrested. Two days later (Oct. 24th), the bleeding recurred, in considerable quantity, and was finally stopped by the application of lint saturated in perchloride of iron. On the morning of the 30th it returned with such violence as to eject streams of arterial blood a distance of five or six feet. The quantity lost at this time was enormous. Neither pressure nor the application of the iron had any influence in its arrest, and the hæmorrhage only ceased when the patient fainted from exhaustion. During this hæmorrhage, Dr. C. was called to see him by his attending physician, Dr. Page. He found, upon examination, a tumor situated between the ensiform cartilage of the sternum and the umbilicus, pyramidal in form, about five inches in diameter at its base, and four inches from base to apex. It was firm to the touch, yet exceedingly vascular, and pulsated with sufficient force to move the tumor sensibly; nor was the motion imparted to the tumor by the circulation materially diminished by change of position in the patient, or by raising the tumor and the anterior abdominal walls from over the aorta. It was firmly attached along the linea alba, so that the fingers could only with the greatest difficulty be inserted a few lines beneath its lateral edges. The patient had become greatly prostrated from the loss of blood, and the liability of the recurrence of the hæmorrhage was fully appreciated. Nevertheless, it was decided (because of the difficulty in determining the cause of the pulsation and the source of the hæmorrhage) to wait until the next day, and examine the case again before performing an operation. The bleeding came on again at 10 o'clock on the following morning (Oct. 31st), but was, after a considerable loss of blood and repeated applications of the persulphate of iron, arrested. In the afternoon of the same day, after another examination, the tumor was removed by Dr. Cady, assisted by Drs. Green and Page. It was found that the adhesions which bound it so firmly to the abdominal walls existed, not only along the linea alba, but between the tumor and the adjacent muscles. These bands (of fibro-cellular tissue) were of great firmness and density, through which emerged several arteries of considerable size, four of which it was found necessary to ligature. The edges of the wound were brought together with some difficulty. It did not heal by first intention. Considerable sloughing followed, but after a time, by a generous diet and local applications of a solution of nitrate of silver, the granulations became healthy, and in five weeks it had entirely healed, and the general health of the patient was perfectly restored.

Dr. Cady remarked that the points of interest in the case were, the slowness of growth, during the first ten months, compared with the rapidity in the last few weeks; the absence of sensibility in the early part of its history and the acuteness of that sensibility in the latter part; the pulsatory motion of the tumor, so well marked, without any aneurismal condition, and the arterial development in a growth having so recent an origin.

Dr. Cady also exhibited a scirrhous breast. Mrs. N., about 48 years of age, vigorous and healthy in all respects until July, 1861, when she began to feel "sharp twinges" of pain in the left breast. In August, she discovered a "small, hard bunch" just beneath the nipple, which from that time went on increasing in size. The paroxysms of pain became more frequent and intense, until February, 1862, when she consulted her usual medical attendant. Not receiving from him the encouragement she desired, and her general health being impaired, she sought the advice of another physician, who prescribed iron and iodide of potassium, and the local application of tincture of iodine to the breast. After a time, receiving no benefit from the remedies, and the application of the iodine seeming to increase the local disturbance, she again sent for Dr. Jennings, her regular physician, under whose care she remained till early in May. The tumor continued to enlarge, the nipple to recede from the surface, the shrinking and discoloration of the breast to be more apparent. The sallow complexion, emaciation and the general cancerous cachexia had become so strongly marked, as to induce Dr. J. to advise extirpation of the breast. Dr. C., assisted by Dr. J., removed the breast on the 8th of May. The wound healed readily, chiefly by first intention; all constitutional disturbance disappeared after a few weeks, and the patient is now, ten months after the operation, perfectly free from any local manifestation of the disease. Has regained her flesh and strength entirely. Dr. Cady said he did not present this case because it was unusual to remove scirrhous breasts, but that he might add to the proofs already existing of the good results likely to follow the *early* removal of such tumors, before the surface becomes ulcerated, the surrounding glands implicated, and the system wholly impregnated with the poison.

Dr. Cady reported the following case of gun-shot wound. Lt. B. (of the 15th M. V. M., Andrews' sharp-shooters), received, at the battle of Antietam (Sept. 17th, 1862), a wound from a rifle ball. The ball entered the body, just behind the anterior superior spinous process of the ilium, producing a compound comminuted fracture of the upper portion of the os innominatum; and escaped at a point just anterior to the sacro-iliac junction, and about an inch below the crest, of the ilium; carrying through the opening several small spicula of bone. The following day, after being removed to the Hospital, several small fragments of bone were removed from the wound, through which the ball made its escape. Four days later (Sept. 22d), his Surgeon discovered that no discharge of any kind came from either of the openings, that the swelling had considerably increased, and that loose fragments of bone were lying near the surface, in the region of the crest of the ilium. He made an incision of some three inches in length, midway between the points of entrance and egress of the ball, and removed several of these shattered pieces of bone. Three of them were one and one fourth inches in length, nearly an inch in width, and the full thickness of the ilium. Suppuration was established in due time, and with the discharge of pus were often found small spicula of bone. In December, the patient was removed from the hospital to his home in Windsor, Berkshire Co. Dr. C. first saw him January 3d, 1863. At that time there was a moderate discharge of pus from all three of the openings; the one made by the knife discharged most. A probe could be carried from the anterior through the posterior opening, and one introduced at the middle opening could be made to touch the other at right angles. The irregularly fractured bone could be traced, with the probe, its whole extent. The patient was directed to take quinine and iron, to syringe the wounds through each opening with tepid water; then to inject into them a solution of nitrate of silver (five grains to the ounce of water) once a day. Dr. C. saw the patient again Jan. 13th. The general appearance of the wound had improved. The discharge diminished in quantity, and was lighter in color. Lt. B. showed him, at that time, two spicula of bone, one inch in length, which had escaped from the central opening the day before. No detached fragments of bone could be detected with the probe. Directed the same treatment to be continued. Saw the patient again Jan. 27th. Discharge much diminished; anterior wound entirely closed; middle and posterior still communicated with each other; firm cicatrization over the anterior portion of the fractured ilium; patient gaining flesh; general appearance greatly improved. Directed a continuation of same treatment (injections of nitrate of silver, with doses of quinine and iron). Lt. B. came to him Feb. 14th. The posterior wound was nearly healed; from the central several pieces of bone had escaped within a few days; discharge of pus very slight; some large granulations still existed around the central opening; general health good. Was directed to omit the quinine and iron, and continue the injections. The flabby granulations were cauterized. Came to his office again March 16th. Wounds entirely healed; the cicatrization was firm. He walked with ease, but could not push with any force with the left hand, or raise a great weight with the right, the muscles of the left side being detached from their moorings to the pelvis. Lt. B. has, within a week, reported himself for duty in the field. Dr. C. thought it unusual for a gun-shot wound implicating the soft parts and a spongy bone like the ilium to such an extent, to heal so readily and give rise to so little constitutional disturbance.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MAY 7, 1863.

Annual Report of the Trustees of the Museum of Comparative Zoölogy, together with the Report of the Director.—We have before us the annual report of the Museum at Cambridge, under the charge of Prof. Agassiz, and it gives most gratifying proof that the din of arms is not as yet sufficient to arrest the progress of science among us; and that notwithstanding the enormous sacrifices our community is making to contribute its share to the support of the Government, the study of Nature's laws is still carried on with zeal and assiduity. The report shows that the institution at Cambridge has already assumed an authoritative position among the great collections of the world. We say authoritative, for it is not merely a heterogeneous collection of natural objects for the gratification of public curiosity, however laudable such a motive may be to interest the community at large in the wonders of creation. It is gathered for a much more profound purpose than this. If we understand the plan of its projector, his principal object has been to bring together in this collection such a vast number of specimens from the different departments of the animal kingdom, that the subtle affinities and relations which bind the whole system of zoölogy together may be made evident to all; and that the grand and beautiful plan of their creation may be read from class to class in regular sequence, as one might turn the leaves of some mighty work, a masterpiece of intellect, in which step after step, by impregnable logic and pertinent illustration, the reader is led along to the irresistible conclusion. The plan is one which might well appal a common mind, and which one could hardly hope to see carried out to its conclusion within the limits of an ordinary life. The object, however, is worthy of a master mind, such as conceived it, and to the diffused magnetism emanating from that mind we must look for the completion of the great work he has had the boldness to undertake. And here we would observe that it is something remarkable that an object, which in its incompleteness and to common observation is so recondite, so little calculated to impress the vulgar mind or gratify superficial curiosity, has through the peculiar power of its earnest advocate, the director of the Museum, become a matter of such public interest that the finances of the State and the private resources of individuals have been placed at his disposal, almost without limit, and voluntary contributions have been poured in upon the Museum from all parts of the world, which a princely income alone could purchase.

Much might be said about the new views of zoölogical relations, the definition of species and the question of their origin, the necessary change of opinion on some very important geological points, which the comparison and juxtaposition of such great numbers of specimens of single species as this Museum contains are likely to bring about. Any one who has heard from time to time the new views and suggestions which in its incomplete condition it has opened to the ever active mind of its founder, must feel that its continued growth and prosperity are most worthy objects of interest and care to an enlightened community. Its claim to direct financial aid from the State rests on its being a part of the general system of popular education. Speaking of it in this relation, the Trustees report that its condition is highly gratifying. "The lectures, just closed, have been attended by from one hundred to one hundred and twenty persons, about half of whom were not connected with the University at Cambridge, but came from the people at large. Besides these lectures, much instruction has undoubtedly been gained by the large number of persons who daily, at all hours, and in all seasons, have visited the collections, which are always open and accessible, free of charge, to all comers." A large part of the listeners from the community at large are, we understand, engaged in teaching; and thus the benefit received is at once widely diffused through the community. The Trustees also state that the sum of eleven thousand two hundred dollars has been recently subscribed by a few public-spirited individuals, to meet a temporary falling off in the resources of the institution, growing out of the exigencies of the times, one half of it only to be expended during the present year.

The report of the director gives an interesting account of the amount of work done during the past year, and the special subjects which the scientific corps engaged in it have been employed in elucidating. The contributions have been large. "Mainly through the liberality of gentlemen engaged in business, no less than two hundred and thirty packages, barrels, cans, &c., filled with specimens from every quarter of the globe," have been received. Many specimens have also been received from scientific societies, and due acknowledgment is made to all of them, as well as to the private individuals by name, to whose generosity the Museum is so much indebted. Prof. Agassiz has himself contributed to the library from his own private library 823 volumes, mostly transactions of learned societies, and his son has presented his collection of insects, consisting of one hundred and ten cases. Of the collection of fishes belonging to the Museum, the director says:—

> "Thus far the collection of fishes brought together in the Jardin des Plantes, by Cuvier and Valenciennes, has been considered the largest in existence, numbering about four thousand two hundred species, according to a recent report by Professor Dumeril. From a recent article in the Natural History Review, of London, I see that the Curator of the British Museum claims now a superiority for their collection, over that of Paris, stating that the former contains 20,000 specimens. The number of species is not given, but judging from Dr. Günther's catalogue, as far as printed, the number of species can hardly exceed that of the Jardin des Plantes. Our own collection numbers now 100,000 specimens, representing 6,000 species, all preserved in alcohol. This numerous collection allows for the possibility of an extensive system of exchanges, as well as for the preparation of a large number of skeletons, of which we have already more than fifteen hundred."

Following the report of the director are the reports of his subordinates, each giving a history of what has been done in his department during the past year, and giving full acknowledgment for every donation received. That of the Curator of Ichthyology also unfolds in detail a plan for the special arrangement of the fishes in the Museum in accordance with the views of the director. Some idea of the magnitude of the work undertaken may be obtained from his statement that "it is estimated that it will take at least ten years to complete the arrangement of the fishes only, and that the expense for this special purpose cannot be less than twenty thousand dollars." "The total number of specimens added to the department of Ichthyology during the past year, amounts to two thousand seven hundred and seventy-nine, consisting of three hundred and seventy-nine species, of which about two hundred are new to the collection. The small addition of new species shows that our collection has reached a point of completeness when a further increase becomes very slow."

In the department of Mammalia, the report states that "the additions to the collection, although not numerous, have been very valuable. The whole number received, not including the fossils, is 233, in 42 lots, comprising 117 species, of which a considerable number were new to the collection."

In the department of Birds, "during the year there have been received 52 lots, comprising 2,274 specimens, representing 453 species, of which 223 are foreign and the rest American."

Of Reptiles "thirty-six donations have been received, amounting to seven hundred and nine specimens, consisting of one hundred and seventy-four different species, ninety-four of which were not before in the collection."

In the deparatment of Insects, the Curator says:

> "It will be seen by the schedule accompanying this report, wherein the additions received during the year have been recorded, that the additions received by donation amount to 2,053 species, represented by 6,792 specimens; that those received through the Gray Fund number 1,941 species and 6,036 specimens; and

that those obtained by exchange reach the sum of 2,568 species and 11,354 specimens, making a total of 6,562 species and 24,182 specimens. These numbers should only be taken as an approximate, because an actual enumeration of the specimens was scarcely possible, and a careful determination of the species would be the work of many years."

Of the Annelids 400 specimens have been received, comprising 49 species, since the collection was catalogued. The additions to the collection of Echinoderms have been numerous and valuable, especially with reference to their geographical distribution. Of the Acalephs, 33 species have been received, most of them new to the collection. Of the Polyps it is said, " the number of specimens of corals that have been identified, labelled and catalogued, is 3,123, or about one fourth of the entire collection. The additions to this department have been numerous and important. The whole number received, including both alcoholic and dry specimens, is 788, representing 150 species, many of which were new to the collection."

We have thus run over this important report. It contains many details of interest, for which we have no space. It shows that there is a body of working men at Cambridge, who, under the guidance of the director of the Museum, are opening a new chapter in the zoölogical history of our planet.

PROF. FRANK H. HAMILTON, now a Medical Inspector in the regular army, was lately taken prisoner near Nashville, Tenn. After severe hardship, with other prisoners, he was allowed to return to Nashville.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MAY 2d, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - - - -	42	46	88
Ave. mortality of corresponding weeks for ten years, 1853—1863,	36.8	39.0	74.8
Average corrected to increased population - - - - -	00	00	82.46
Death of persons above 90 - - - - - - - - -	0	1	1

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
20	2	0	5	0	0	2	1

COMMUNICATIONS RECEIVED—Cases treated at Hospital No. 2, Nashville, Tenn. From Surgeon James Bryan.

PAMPHLETS RECEIVED.—Speech of the Rev. Dr. Bellows, President of the United States Sanitary Commission, made at the Academy of Music, Philadelphia, Tuesday evening, February 24th, 1863.

MARRIED,—In this city, 29th ult., Dr. Alonzo Boothby to Miss Maria A. Stodder, both of Athens, Me.—In Hingham, 22d ult., Dr. J. Edwards Harlow to Miss Sallie G. Thaxter, both of Hingham.

DIED,—At Cummington, 19th ult., Dr. Benjamin Gardner. 78.—At Philadelphia, 13th ult., suddenly, Joseph H. Haskell, M.D., 42 years.

DEATHS IN BOSTON for the week ending Saturday noon, May 2d, 88. Males, 42—Females, 46.—Accident, 1—anæmia, 1—apoplexy, 2—inflammation of the bowels, 1—congestion of the brain, 2—disease of the brain, 2—bronchitis, 3—cancer (of the uterus), 1—consumption, 20—convulsions, 5—croup, 2—diphtheria, 1—dropsy, 5—dropsy of the brain, 8—drowned, 1—typhoid fever, 2—gangrene, 2—hæmorrhage, 1—disease of the heart, 4—intemperance, 2—inflammation of the lungs, 5—old age, 2—paralysis, 1—premature birth, 2—scirrhus, 1—smallpox, 1—sore throat, 1—ulcers, 1—unknown, 4—whooping cough, 4.

Under 5 years of age, 32—between 5 and 20 years, 4—between 20 and 40 years, 25—between 40 and 60 years, 18—above 60 years, 9. Born in the United States, 59—Ireland, 20—other places, 9.

THE

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SURGICAL CASES IN HOSPITAL No. 2, NASHVILLE, TENN.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS.—Before leaving this beautiful town on my way to the Headquarters of Gen. Grant, I propose sketching for you some of the surgical cases of this hospital.

CASE I. *Wound of the Abdomen, Crest of the Ilium.*—John B. Edgar, private 36th Illinois regiment. Forced to retreat a few hundred yards at the battle of Stone River, December 31st, 1862, he received a bullet near the upper third of the crest of the right ilium. The ball seems to have struck the crest, and been turned slightly from its course, passing horizontally between the layers of abdominal muscle, coming out below and to the right of the umbilicus, and striking the buckle of his belt. Such is the apparent course of the ball. The patient says that *it re-bounded from the buckle, re-entered the tissues, and was afterwards cut out by a surgeon.* The bullet, which he still retains, is flattened on two sides, and at the base.

Four months have intervened, and the following is the present condition of the wound. The wound of exit, ragged and large, has entirely healed up and cicatrized. The track of the ball has closed up, with the exception of about one fourth of it next to the wound of entrance. A portion of the crest appears to be exfoliating, and the discharge is small in amount and healthy. Some tenderness remains across the lower part of the abdomen, which is painful on attempting to walk. The patient, although thin, appears to be healthy, and has a fair prospect of getting well soon.

CASE II.—James Cook, private 79th Illinois, wounded in the same battle. The bullet in this case entered the tissues near the anterior extremity of the seventh rib, on the left side, and grazing the edge of that bone, passed downwards and outwards in the direction of the crest of the ilium, making a track of about four inches. The present condition of the patient is as follows: The discharge has nearly ceased, one or two pieces of the rib have been discharged, the wound of exit has entirely healed up, and the wound of entrance is about the size of a five-cent piece.

Case III.—Emanuel Seitz, private 19th Ohio, occupation farmer, received a gun-shot wound in the same battle. The bullet in this case entered on the left side of the symphysis pubis, passing downwards and backwards and opening for itself a passage on the left side of the anus, forming an extraordinary variety of anal fistula, not connected, however, with the rectum. The course of the ball did not involve either the testicle or penis. The patient appears now to be in a comparatively healthy condition. The track of the ball is closed to within a few lines of each orifice. The wound of entrance is now very small, and discharges a very little healthy pus. The wound of exit is in very nearly the same condition. It gives him a good deal of pain to get up, but he is comfortable in bed. The dressing in this case was creasote ointment. The general health is good, and all the functions are performed healthily. The patient has a bullet which he says he found in his pantaloons.

Case IV.—Martin Smith, private 24th Wisconsin, by occupation a farmer, received a wound in the above-mentioned battle, in the right thigh. The bullet entered on the front of the thigh, in the lower part of the middle third, and passing backwards and upwards, perforated the soft parts of the thigh without injury to the bone. The present condition of this patient is as follows:—The track of the ball has healed through its whole extent, and both wounds are entirely cicatrized. The flexor muscles of the thigh are contracted, so as to prevent the extension of the leg. He can, however, by standing on the ball of his foot, walk about on the limb with the assistance of a cane. In this instance, there is no paralysis, partial or general, of the extremity. The shortening of the large flexor muscles of the thigh appears to be due partly to the position of the limb during the healing of the wound, and partly to the injury received. It is supposed that he will return to duty in a short time.

Numerous superficial wounds of the thigh, in which no important nerves or vessels were wounded, might be reported, which have healed kindly and allowed the patients to return to their regiments. One of the complications attending this kind of wound sometimes, is the injury of one or both testicles, leaving a neuralgic, atrophied or ulcerated condition of these organs or their coverings. Future cases will illustrate this complication.

Case V.—Sergeant Mahlon Peters, 18th U. S. I., received, at the above-named battle, a bullet wound in the middle and anterior portion of the thigh. The ball passed through the soft parts on the inside of the femur, and made its exit on the back and inner portion of the thigh. The wound has entirely healed up, leaving a very contracted condition of the flexor muscle of the thigh, with neuralgia of the foot, and pain on attempting to extend the limb; general emaciation of the limb has followed. The complication here seems to be an injury of the nerves. The femoral artery escaped, and the muscles were not greatly injured. This case will illustrate the difference between injuries of the four important parts of the limb, to wit—the bones, the muscles, the vessels, and the nerves. These injuries of the nerves require investigation and a proper mode of treatment. It would be better, perhaps, in some instances, where the partial destruction of the nerve results in intolerable neuralgias, to divide it entirely *above the gun-shot wound.*

Case VI.—George Ford, private 15th Kentucky, by occupation a farmer, wounded at the Stone river battle, in the lower third of the left thigh. The ball entered on the front surface, passing through the limb and forming a wound of exit behind and towards the outside of the thigh. In this instance the bone, although not broken, is more or less injured. This patient is about 48 years old, of a nervous temperament. The wound of exit has closed entirely, while the wound of entrance remains patulous and irregular. An abscess has formed around the lower end of the femur, which empties freely through the wound of entrance by a lateral and downward pressure, which extends at present a good distance up on the inside of the thigh. Synovitis, with general inflammation of the tissues of the knee-joint, has taken place, and there is fluctuation of the inner side of the knee-joint. The patient was four days exposed on the ground of the battle-field, before medical relief was obtained. He was alternately within the lines of the enemy and our own. He is at present, however, apparently healthy and in good spirits. He tells, with animation, how, after being wounded, he crept behind a tree, and thus hidden shot an approaching "butternut." The prospects in this case are rather doubtful, though the delightful situation of the hospital, the general accommodations, and careful medical attention which he receives, will be all in his favor. In this instance there is no contraction of the flexor muscles of the thigh or leg. The principal injury appears to have been received by the bone, and the strong tendency to suppuration indicates the presence of a foreign body in the wound. This foreign body may have been introduced, or it may be the injured bone. During the last two weeks the treatment in this case has been to evacuate freely the abscess every day, and inject into it a solution (ʒ ss. to ℥ i. of water) of chlorinated soda, after which the wound is dressed with simple cerate. Compresses are also applied with a circular bandage, along the course of the cavity of the abscess. Since the occurrence of the acute inflammation of the knee-joint, cold applications have been freely applied, by means of a lint syphon. Internally, the treatment has been supporting and stimulating—whiskey toddy, beef-tea, quinine and iron.

Case VII.—*Fracture of the Tibia.*—Fred. Meyers, private 101st Ohio. In this case the bullet entered about three inches below the tubercle of the tibia, and passed out through the calf of the leg. I do not know what the previous treatment in this case has been. The present condition is as follows:—The tibia is but very partially united, the wound of entrance still open and discharging pus freely, while the soft tissues are saturated with pus, and perforated by ulcerations. The knee-joint is not involved, nor is the ankle. The patient is a young man of about 21 years, a German, and by no means nervous or very sensitive. Dr. W., his attending surgeon, has placed the limb in a suspensory apparatus, by which the drainage from the ulcers and the dressing of the limb are very much facilitated. The treatment at present consists of creasote ointment and water dressing, alternately.

Case VIII.—Wm. A. Haggerty, private 78th Penn. The wound in this case appears to be from without inwards, about three inches below the knee-joint, the ball passing through the posterior part of the tibia of the left leg. The patient is a young man from Greene County, Pa., a farmer. The treatment for the last month has been alternately simple cerate, creasote ointment, and cold-water dressings. No internal remedies have been used. He is doing well.

Case IX.—Joseph Richardson, private 7th Kentucky. Gunshot wound of both calves. In this case the bullet passed through the soft tissues of both legs, without injuring materially the nerves or bloodvessels. The bullet entered on the outside of the right leg, passing through the gastrocnemei muscles and skin, and entered the left leg, perforating that in the same way. The wound was received about the 9th of April, while on picket duty. The patient was brought to the hospital about the 12th and remained till the 22d. When he left, the wound of the left leg had entirely closed, and that of the right nearly so. With the assistance of a couple of canes he could walk about the grounds tolerably well. There was no paralysis or neuralgia of the feet. The patient was removed to a Northern hospital, and will probably recover entirely from this flesh wound.

Other cases might be given in which wounds of the leg, ankle-joint and foot have terminated favorably under the influence of conservative surgery, but space does not permit additional cases. In my next communication, I desire to speak of the treatment of ulcers and wounds by tar-water dressings, tar ointment, and other applications of tar. Yours, &c., James Bryan,

Surgeon U.S.V.

PUERPERAL CONVULSIONS.

By Joseph Murphy, M.D., Taunton.

[Communicated for the Boston Medical and Surgical Journal.]

Within a comparatively short period, I have witnessed three cases of puerperal convulsions, two of them in my own practice and the third in that of a neighboring physician. The seasons in which they occurred were spring, summer and autumn; the subjects of them healthy, well-formed women, æt. 20, presenting no signs of plethora, anæmia or œdema, in comfortable circumstances, in their first gestation at the full period. I had the opportunity of watching from the commencement the first case. The dilating process was slow, and attended with much suffering; one half of a grain of tartrate of antimony was given every fifteen minutes until nausea was produced, and seemed to facilitate the dilatations, the labor progressing satisfactorily until the head began to press upon the perinæum. The membranes at this point spontaneously ruptured, and I anticipated a speedy delivery. After a more than usually strong pain, the nurse remarked that the patient had fainted. The pulse was small and frequent, the breathing scarcely perceptible, face pale and presenting the aspect of one who had fallen into this state. This calm was followed in about a minute by a little twitching of the angle of the mouth and eyelid of the same side, upheaving of the chest, general convulsion, frothing, hissing, livid face, purple lips, strong spasm of the muscles of the neck, with suffocation apparently imminent. With great difficulty could the tongue be protected. The paroxysm lasted about two minutes, and was followed by general exhaustion and sleep. After five minutes, she awoke entirely unconscious of what had occurred. Uterine contractions commenced again, and were followed by a general convulsion. The change in the lying-in chamber was remarkable; where a few minutes before all was sunshine, now gloom and consternation spread over all. It is well that the medical mind is trained to meet such emergencies, otherwise the bystanders would be a source of weakness and distraction. Dr. Hubbard was called to my assistance, and we determined to use ether and deliver immediately. The ether was administered by Dr. H., and I applied the forceps. If there were no other praise or compensation due to the discoverer of this valuable agent than the gratitude of him who has to perform operations in midwifery, this would go far to recompense him for it. Under its influence the forceps was easily and safely applied, and slight traction, aided by uterine effort, completed delivery.

The child was healthy and active, and cried lustily. The placenta was found in the vagina, and the uterus contracted well without hæmorrhage. After the patient was made comfortable, an interval of twenty minutes elapsed, in which she slept, probably from the influence of the ether. She then awoke, and knew nothing of what had happened. I believe that she does not yet know that instruments have been used. Uterine contractions, or after-pains, commenced, and were immediately followed by a severe convulsion, which passed off like the preceding ones. Ether was used, with the apparent effect of mitigating, but not arresting the spasm. Ten grains of calomel and twenty drops of fluid extract of cannabis Indica were administered. The Indian hemp was repeated in two hours. The intervals between the convulsions became longer.

Ether was used when she awoke and showed signs of restlessness, but without averting the convulsion. Eight hours after the calomel was taken, we got her to swallow one ounce of castor oil, with one drop of croton oil. A large evacuation of the bowels took place, and she fell into a profound sleep, which lasted, with very little interruption, twenty-four hours. Convalescence was satisfactory, and there was an abundance of breast-milk. The patient has since been confined again, and had an easy labor without any unpleasant incidents.

Why was blood-letting withheld in this case, as recommended by experience and usage? Cerebral congestion, upon which puerperal convulsions have been supposed to depend, would have been relieved by it.

Convulsions do not always depend upon cerebral congestion, for we have them in traumatic tetanus, in excessive hæmorrhages, in poisoning from strychnia—so suddenly following as to preclude the inference that loss of balance of the circulation could produce them. Neither were the signs of congestion present in this case beyond the aspect of the countenance during the fit. Symptoms of exhaustion before and after, were more marked. We regarded uterine irritation as the primary cause, transmitted through the nerves of sensation to the cerebro-spinal axis, and from thence reflected by the motor ones to the muscles, thus inducing abnormal movements. To remove or mitigate this irritation, to render the sensory nerves less susceptible, to quiet this excited state of the spinal system—seemed to us to be the indications which, if fulfilled, would be most likely to arrest the convulsions. But the following cases, related by physicians of established reputation in the practice of obstetrics, demonstrate the great confidence they had in frequent and large blood-lettings in puerperal convulsions. Denman relates that a patient was bled with no apparent benefit, for the convulsions continued; but during a fit, the bandage slipped from the arm, a great quantity of blood was lost, and the convulsion ceased. This case seemed to suggest, or confirm the benefits to be derived from copious bleeding; he says fifty, sixty or seventy ounces of blood may be cautiously taken away. Hamilton says, take away forty ounces at once, and if in two hours the patient is not better, take away forty more. Gooch relates that "a little woman, aged 18, of a spare habit, was seized with pain in her head and trembling, on which she fell down senseless. I was sent for, and soon after my arrival she became convulsed. This was the first case of the kind I had ever seen, and though the patient was not of a plethoric habit, I bled her to the amount of twenty ounces. Before the bleeding was stopped she opened her eyes, and the convulsions ceased. I ordered her head to be shaved, directed cold applications to the scalp, and a dose of sulphate of magnesia, with infusion of senna to be given every three hours, until the bowels were well cleared. Notwithstanding the favorable impression made by the bleeding, which was followed by the action of the purgative, in a short time the convulsions returned, the bandage slipped off, and she lost about eight ounces of blood. The husband tied up the arm, and in great haste ran for me—without his hat, and his hands covered with blood. I went immediately and took away twenty ounces more, and the convulsions ceased, but still the patient remained insensible. I left her, directing the black dose to be continued. At 10 o'clock, at night, I went to see her again. She had, since 9 in the morning, lost forty-eight ounces of blood, and still remained much the same. I now again bled her to about thirty ounces; the convulsions ceased, and in the morning she was decidedly better; in the course of the day uterine pains came on; she was delivered of a dead child, and gradually recovered."

Dewees relates that Mrs. ——, aged 26, pregnant of her first child, a large, plethoric, robust woman, was, on the 9th September, 1811, at about 5, A.M., taken with labor pains, and sent for her midwife. "Before the midwife arrived she was seized with terrible convulsions, and I was immediately sent for. The fits were frequently repeated, and were, from their extreme violence, very threatening. Her face was considerably swelled, her eyes fairly protruded from the sockets, her tongue was terribly wounded. I instantly bled her from the jugular vein more than three pints; examined her, and found labor approaching; ordered a brisk injection. Saw her two hours after; she had had several fits; pulse extremely active; labor advancing. Bled her twenty ounces; injections repeated. A stream of cold water was poured upon her head during the intervals of the fits. 11, A.M., fits not so severe, but pretty frequent; pulse still very active. Took a quart of blood; patient apparently much relieved; became more quiet. 1, P.M., she had had two or three fits; very restless; moaned every few minutes; desirous of getting from the bed; bled her twelve ounces. Examined and found the head low in the pelvis, and delivered with forceps. She had two or three fits after delivery, and remained insensible to everything for forty-eight hours. She now began to show some signs of returning sensibility, was bled twice in the interval, cold was applied to the head, and the legs were blistered. She was purged freely by senna tea; after this she gradually recovered her senses. She was left completely blind for two weeks; she then began to see imperfectly, but it was six weeks before she could discern objects. It may be not amiss to observe that the child was living." Dewees says, "This case is remarkable on account of the severity of the disease, and the large quantity of blood that was drawn in the short period of a few hours. She lost, in the first six or seven hours of her illness, one hundred and twenty ounces of blood, and about an hundred and forty ounces altogether —a quantity that might at first startle the timid or inexperienced practitioner; but when he reflects that there was a patient laboring under one of the most ferocious complaints in the whole catalogue of human diseases; the brain threatened with immediate destruction; the patient of prodigiously full habit, one who not only neglected the kindly warning of headache, giddiness, and occasionally loss of vision, by not having recourse to bleeding—but, contrary to the advice of the midwife, fed freely, and remained long costive—what, then, could avert the threatening consequences of this disease, but the most prompt, and the most subduing remedies? Had not the bleeding been carried to the extent it was, I really believe it would have been unavailing. Even as it was, it did not prevent temporary blindness. Her second pregnancy was not attended with any untoward circumstance."

As regards the employment of general bleeding, and all such means as tend to abate the vital power, the opinion of the profession has undergone a very important change, chiefly within the past thirty years. Notwithstanding we cannot safely reject entirely the conclusions arrived at, and the practice adopted by the experienced physicians I have just cited, it is equally difficult to prove or disprove the value of so powerful an antiphlogistic as bloodletting in the cases reported by them; but the subsequent observations of equally accurate observers show that in many cases the symptoms which have been thought heretofore to depend upon inflammation or pressure which it was needful to remove, may be the consequence of irritation alone, loss of nervous power, deficient circulation of blood within the brain, or altered qualities of this blood.

In cases of large and sudden hæmorrhages, as in childbirth, the whole system is often put into a state of seeming excitement, and the head in particular is affected with pain, throbbing and vertigo—which symptoms are best removed by such means as gradually and equably restore the circulation and nervous power. In Sir Astley Cooper's experiments, the two vertebral arteries were tied, and various forms of spasmodic and paralytic seizures took place. In children, we have express instances of a state having all the characters of coma, but which is proved by the precursory causes, as well as by medical treatment, to depend upon general feebleness of circulation and deficiency of nervous power. Prof. Bedford, of the University of New York, makes the following remarks to his class: "Well, gentlemen, you are summoned to a lady in convulsions in the progress of her pregnancy. Labor has not commenced. What is to be done? We assume that the convulsions are due to uterine irritation, and are not complicated with uræmia. If you leave this University with the conviction, too strongly impressed upon the minds of some practitioners, that the reliable remedies in puerperal convulsions are bloodletting and opium, it is reasonable to suppose that either one or other of these remedies would be recommended. Let us pause and examine this point; the examination may save you and protect your patients against the fatal consequences of stereotyped practice. Here, then, is your patient in gestation attacked by convulsions;

the instant you approach her, true to the undying instincts of routinism, you call for a bandage and basin; the blood flows, the patient faints, re-action comes on, another convulsion; you have not taken away blood enough, whispers that fatal delusion routinism; the orifice is opened, slowly the current flows, syncope follows; a feeble re-action —another convulsion, and speedily death. The practitioner who has an abiding faith in bloodletting would, if consistent, say to the disconsolate friends, Oh, if I had seen this case at the commencement, I should undoubtedly have saved that life." It would be doing Prof. Bedford an injustice to infer from these remarks that he rejects bleeding wholly in the treatment of convulsions. He afterwards states that having a due regard to the circumstances of each case, bleeding may be necessary and the best remedy we can adopt. But my object in bringing forward his remarks is to show the change which has taken place in the past and present views regarding the employment of so important a remedy in the treatment of puerperal convulsions. The circumstances under which I deem it proper to have recourse to it, will be seen from the treatment of the following case.

This case I had not an opportunity of attending from the commencement of labor. The head was distending the perinæum, and the membranes were ruptured, when I arrived; the pains were very strong and expulsive. Without any previous warning, a strong convulsion set in. The fit presented all the characteristics of an epileptic seizure. There was no time lost that could be avoided in this case. I sent for ether and forceps; had the assistance of Dr. Hubbard, and while he administered it I applied the forceps. It required more force in this case to effect extraction than in the former; the child was also very feeble, and required some effort to bring about good respiration. The placenta was retained by a strong contraction, which followed the expulsion of the child. A considerable time was allowed to elapse, with pressure upon the uterus, before attempting its removal. There was some hæmorrhage, but no convulsion. At length we considered that it ought to be removed. This was followed by a terrible convulsion. After it had subsided, the pulse was counted, and was found to be 120, small and feeble; face pale, no stertorous breathing. Ether, ext. cannabis Indica, calomel, as in the former case, and opium in addition, were administered. The convulsions recurred every half hour during the night. At seven, A.M., the breathing was labored and stertorous, and she could not be roused or made conscious. We decided to bleed. I took sixteen ounces from the arm, which was followed immediately by another fit. An enema of castor oil and turpentine was given, which caused an evacuation, and two hours elapsed without a convulsion. The calomel was repeated, and the interval between the fits increased, but they did not altogether cease for two days after delivery. I should observe that the stertorous breathing ceased after the bleeding; natural sleep followed, and she awoke recognizing her friends, but entirely unconscious of everything which took place from the first convulsion. Her mind was a perfect blank for three days; convalescence was slow, but satisfactory. She has had an easy and safe labor since.

Bleeding was resorted to in this case to relieve the brain from dangerous congestion. The stertorous breathing and coma increasing, while the convulsions became less violent, induced us to apprehend such consequence. The influence of a mixture of chloroform and ether, one part of the former to three of the latter, was by the ordinary means of inhalation obtained in both cases; the severity of the fits seemed mitigated during the state of anæsthesia, but they were not arrested. During manual interference its agency was invaluable. I think, with many other physicians, that a cautious and discriminating resort to this remedy will elicit some special indication which will dispel the doubts that yet interfere with its general use.

Dr. Channing, of Boston, whose researches upon the general subject of etherization are a great acquisition, remarks that among the alleged lesions of nervous function after etherization is convulsive disease. "My attention has been particularly directed to this subject, because the disease in question forms the gravest complication of labor. I have not met with a single instance at home or abroad. So far from this, I have seen cases of most grave puerperal convulsions in which ether has been used with the best results."

Dr. Bartlett, of New Bedford, and Dr. Cabot, of Boston, have communicated cases, in which the full effect of ether was produced after bleeding with great success. Mr. Tracy, Physician to the Lying-in Hospital, Melbourne, has published several cases in which, after large and repeated bloodletting failed to arrest the fits, he had recourse to the inhalation of chloroform with the best results. He says, "I would advise the administration of chloroform in all ordinary cases of puerperal convulsions, and, when the attack is extremely violent and the patient young and plethoric, to take a little blood previous to its inhalation."

The following case, by Dr. Page, of Landport, in connection with the administration of chloroform, is interesting:—

"Feb. 14th.—A woman, about 30 years of age, in every respect healthy, and naturally of a cheerful disposition, at the full period of pregnancy with her sixth child, was suddenly seized with convulsions about midday. When I saw her, she had had seven or eight severe attacks in an hour. She was lying in a state of coma, with stertorous breathing, contracted pupils, pulse full, strong, about 80. The os uteri was rigid, without the slightest disposition to dilate, nor was there any symptom of approaching labor. She was bled to sixteen ounces. A violent fit ensued. I then kept her under the influence of chloroform for half an hour, and waited another half hour.

No fit occurred. A turpentine enema was given, and a blister was applied to the nape of the neck. At 6, P.M., she had had convulsions at intervals. At the moment of my entering the room, the child was expelled suddenly during a fit. The placenta followed at once, and the labor was complete. The patient was still insensible, with rapid convulsions. The enema operated well. I again used chloroform for half an hour. At 10, P.M., four hours after labor, the patient was very quietly sleeping; there had been no return of the convulsions.

"Feb. 15th, 8, A.M., sixteen hours after delivery, she had been in convulsions during the night. I found her, at 9, P.M., much as I left her the night before, in profound sleep. She had convulsions whilst I was present. Chloroform was again given for half an hour, after which she had no attack. The mother and child did well. She has not the slightest recollection of anything that happened during her illness."

In 1843, Simpson published a case of puerperal convulsions in connection with albuminuria. Dr. Lever, in Guy's Hospital Reports, contributed a valuable paper on the same subject, and from that date the dependence upon, or rather co-existence of puerperal convulsions with albuminuria has become an acknowledged fact in obstetric pathology. Dr. Frerichs holds that the mere simple and common decomposition of urea into carbonate of ammonia is the cause of albuminuria ending in convulsions and coma, as urea does not, in his opinion and according to his experiments, produce convulsions or comatose effects. But this explanation is not deemed satisfactory by physicians generally; the subject still requires more investigation. There is often a co-existence of puerperal convulsions, albuminuria and œdema, general or local; but each one of these conditions may, and has, existed irrespectively of the other. From what has been stated, it would seem reasonable to deduce the following conclusions:

1. That bleeding, under certain conditions, is followed with good results.

2. That excessive loss of blood has not prevented the recurrence of the fits.

3. That etherization is not to be used to the exclusion of blood-letting, but the evidence of its value is increasing in the ratio of its trials.

4. That delivery does not always arrest the convulsions.

5. That when the head is low in the pelvis, the forceps should be applied, and the child is generally safely delivered.

6. That introduction of the hand into the uterus occasions irritation, and is followed by a fit, which, in the opinion of many physicians, does more harm than is compensated by the benefit derived from emptying the uterus.

7. That this objection may be removed by anæsthesia, induced to its full extent, under the superintendence of an experienced assistant.

8. That favorable conditions have in most cases coincided with and followed free evacuation of the bowels.

9. That the restricted employment of bleeding, followed by the production of anæsthesia to its full extent, delivery, where circumstances permit this to be done with facility, and free evacuation of the bowels, offer the best chance of safety to mother and child in puerperal convulsions.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

MARCH 23d.—*Extra-Uterine Fœtation.*—Dr. ELLIS showed the specimen, which he received from Dr. Willis, of Waltham.

The patient was 24 years of age, and had been married three years. Two years before death, she had miscarried at the third month. Dr. Willis was first called on January 4th. She then complained of intense pain in the abdomen, extending down the thighs. A vaginal examination showed the womb to be slightly depressed, and very tender. Immediate relief was afforded by raising it, and also several times afterwards. She was kept in bed the greater part of the time for four or five weeks, as the pain immediately returned on motion. An injection of tannin (forty grains to the ounce) also afforded great relief, and she was finally able to sit up several hours, but always had her dejections and passed her water while lying down. She afterwards became so costive that castor oil acted with difficulty.

At 1, P.M., March 12th, while in bed, alone in her room, she was suddenly attacked with alarming syncope. When seen by Dr. Willis, at 3¼ o'clock, she was very pale, pulseless, and apparently dying. After the administration of brandy and ammonia, the pulse returned, but was very rapid. She died at 12 o'clock, eleven hours after the first symptom.

On examination, by Dr. Willis, a very large coagulum and much bloody serum were found in the peritoneal cavity. A complete ovum, containing a fœtus, was found in the pelvis. This was intact, when examined by Dr. Ellis, but separated from the uterus. The ovum appeared to lie between the Fallopian tube and the ovary. The placenta, however, was not especially connected with either, but it was difficult to state its exact boundaries, as it surrounded the ovum irregularly, instead of forming a well-defined mass. It seemed clear, from the appearance of the specimen, that it must have been attached to some parts of the pelvic wall, although the extremity of the Fallopian tube may have participated. The fœtus was well-formed, and 6½ inches in length from vertex to heel.

The uterus was 4 inches in length, and 2½ inches in breadth on a line with the Fallopian tube. The walls were six eighths of an inch in thickness, soft and changed as in pregnancy. The lining membrane was white, loose, irregular, covered with minute puncta, and from one to two lines in thickness. A thick, viscid substance obstructed the os.

The patient was in the fourth month of pregnancy.

April 27th.—*Dilated Bronchus.*—Dr. C. E. Ware reported the following case.

The patient was a young woman, who had been strong and healthy. For five weeks before her entrance into the hospital she had a cough, and she had been sick with symptoms of pneumonia four days. She died two days afterwards, without very active symptoms. There was bronchial respiration in the upper part of the right lung; and below the clavicle and over the spine of the scapula of the same side there was cavernous respiration and a well-marked tympanitic resonance on percussion, from which Dr. W. had diagnosticated a cavity of some sort during the patient's life. Outside the space occupied by the bronchial respiration was a coarse crepitant râle.

At the autopsy, the lower part of the right lung was found compressed, so as not to crepitate, about a pint of purulent fluid occupying the lower part of the cavity of the chest. The remainder of the lung was hepatized, chiefly of a greyish or yellowish-white color. In the middle of the upper lobe, within perhaps an inch and a half of the apex, was a dilated bronchus, of sufficient size to admit the end of the middle finger. It formed a kind of cavity in the depth of the lung, with a red lining membrane. The parts least dilated were marked by slightly-elevated, transverse folds. The terminal cavity was traversed by smooth bands, quite short, but of considerable thickness. A very much smaller dilatation was noticed in the immediate neighborhood, but the other bronchi appeared healthy. The dilated ones were entirely surrounded by hepatized lung.

The kidneys were both very small. Their external surface was very irregular, owing to the existence of numerous, small, yellow elevations, larger than the granulations usually seen. The cortical substance was very thin, and presented the same change as externally. The cones were flattened and distorted. The adipose tissue extended along the external surface of the infundibula, far into the organ. On microscopic examination, fat globules were seen in the yellowish portions, and some were found in the tubuli. But very few of the latter were seen.

The complication of degeneration of the kidneys accounted for the suddenness of the death of the patient with so limited an amount of pulmonary disease.

April 27th.—*Bright's Disease, with Hypertrophy and Valvular Disease of the Heart.*—Dr. Ellis showed the specimens, which came from a patient of Dr. Minot. The kidneys were of the usual size; smooth externally. The cortical substance was of a yellowish-white color, and much less vascular than usual. A microscopic examination showed that the tubuli were so crowded with epithelium that they had an opaque, granular appearance. The heart was universally hypertrophied and dilated. It weighed one pound, four ounces. Upon the external surface of the right auricle and ventricle were quite large, irregular, white spots. Upon the ventricular surface of the aortic valves were soft elevations, the largest about a quarter of an inch in diameter. These appeared to be composed partly of the diseased tissue of the valve, and partly of coagulated blood. One of the valves had lost a portion of its free edge. There was some atheromatous disease of the mitral valve and of the aorta. Serum was found in the pleuræ, pericardium and peritoneum in abnormal quantity. The lungs were somewhat œdematous.

The patient was a man, 34 years old, a hostler by occupation. He entered the Hospital April 11th, having been troubled with pain in the abdomen and diarrhœa for four months. He used spirits daily. Two months before entrance, he "took cold," and began to have cough, pain in the limbs, palpitation, dyspnœa and anasarca. He had great swelling of the face and limbs, with some ascites. The urine was scanty, albuminous, and contained granular casts of the tubuli, and a great quantity of uric acid crystals. Its specific gravity was 1010. There was a souffle with the first sound of the heart, audible both in front and behind. Shortly after the patient's entrance, he had an eruption of purpuric spots on the abdomen and thighs. There was some cough, with viscid expectoration, which was turned black by the addition of sulphate of iron, showing the presence of gallic acid, which he was taking, but which could not be detected in his urine. The anasarca and dyspnœa increased, and the patient died in a fortnight after his entrance.

April 27th.—*Excision of the Head of the Humerus.*—Dr. Hodges exhibited a head of the humerus, removed by Dr. Algernon Coolidge from a soldier in Portsmouth Grove Hospital. He was wounded at the battle of Fredericksburg by a bullet striking the front part of the shoulder, passing downwards and backwards, and emerging over the scapula. Although the neck of the bone was cut through in nearly half its thickness, there was no shattering either of the head or of the shaft. Small portions of necrosed cancellated tissue had, on several occasions, been extracted, and the operation was finally performed because of an increasing œdema and unhealthy condition of the arm. The patient's appetite and general condition were excellent, and although a few days only had elapsed since the excision, there was every reason to think that the case would terminate favorably.

Dr. Hodges availed himself of the opportunity to express his belief that the most frequent cause of a fatal result in excisions in military practice, performed on the upper extremity, where alone they were justifiable, was the period at which they were generally practised, viz., at the time of, or a few days after, the injury. The rule in vogue with regard to amputations (and which he thought was also subject to the criticism about to be made, especially as regarded those of the thigh), that they should be primary in all cases where the choice is offered, is not applicable in the case of excisions. By a primary amputation a patient is relieved of everything connected with the injury in the way of disintegrated soft parts, fractured bone, &c., which, if unremoved, might compromise his life, and is left with a smooth incised wound, a free exit for future accumulations of pus, and in the best state for transportation. An excision, on the contrary, leaves him in a condition analogous to that of a compound fracture, with a wound favoring the infiltration of matter, the formation of abscesses, as the pus gravitates to the most dependent point, and subject to constant irritation from every voluntary or involuntary movement, not to speak of that from the almost inevitable transportation. It is obvious that the patient is threatened with a harder siege than after a primary amputation. It is well known that the cases suited to conservative surgery, are with difficulty foretold: at the outset, it is not possible to determine the exact extent of injury. By waiting till this betrays itself, till the inflammatory processes have to a certain extent limited themselves, and the patient's general system has become, as it were, accustomed to the condition induced by a severe wound, habituated to hospital confinement and diet, and tolerant of the suppuration set up, then, even if he be in a critical or exhausted state, excision may be performed with a better prospect of success than at any previous period. An immediate excision, or one undertaken when suppuration has first established itself, carries with it far greater danger than can possibly ensue from leaving the patient untouched; by a judicious delay, an operation which has proved itself fatal beyond all expectation, may be converted, in all the cases where it is admissible, to one of comparative safety. This is well illustrated in the history of six successful cases under Dr. Stearns's care, recently reported in the *Boston Medical and Surgical Journal*, all of which, with a single exception, were performed at least a month after the receipt of the injury. As a primary measure, nothing should be done beyond the extraction of the loosest fragments and foreign bodies. If this will not suffice, and the wound is such that without more decided interference life cannot be preserved, then amputation, and not excision, ought to be performed. The greater success of secondary excisions has been noticed by Langenbeck, Stromeyer and Esmarch, and it is believed that the statistics of the present war will endorse the correctness of their opinions.

Exception has been taken to the statement that a year is ordinarily required for recovery of the full use of an arm after this operation. Its correctness is fully borne out by the cases which have been observed among us. Abscesses, slow exfoliation and persistent sinuses, protract for many months the anticipated recovery.

Dr. Hodges said he had not seen in any of the cases of recovery the degree of usefulness heretofore alleged to be possessed by the subjects of this operation. Anchylosis of the elbow and of the fingers, the result of long disuse and of the extension of inflammatory processes down the arm, impair the mobility of the limb more than the loss of the attachments of the scapular muscles and the destruction of the articulation of the shoulder. It is this condition of the fore-arm, after excision of the elbow-joint (where it is more liable to occur than after that of the head of the humerus, owing to the greater proximity of the focus of inflammation to the hand), that renders that operation so much more unsuccessful than the one at the shoulder. Several of the patients whom Dr. H. had seen, from whom the head of the humerus had been removed after the Peninsula battles, still carried about with them an arm of very little service, always wearing the hand in a sling, to obviate the uncontrollable pendulum-motion of the arm, and the most successful case he had witnessed could only really use his hand when the limb was resting on a table. Of the superiority of even such a limb over any artificial substitute there could, however, be no doubt.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MAY 14, 1863.

MAYDAY HOLIDAY.—We confess that we were disappointed in our forebodings on consulting the table of deaths in Boston for the week ending May 9th. We anticipated a marked increase in the number of deaths of children below the age of fifteen, as an index of the real amount of disease among them consequent upon their late holiday. Mayday this year, 'tis true, was an unusually mild and tempered occasion, wanting somewhat in the keen and merciless character generally so peculiar to it, but still there was felt that cruel east wind, which blows upon Boston with a more vindictive spirit than upon any other Atlantic city, and which for months yet to come will remind her that a vast and near ocean, chilled by winter, does not yield itself so readily as its neighboring elements to the seductive voice of spring. There were hundreds of shivering young girls, half clad in white muslin, with no covering upon the head but a wreath of paper flowers, chests naked to the axillæ, arms bare, and legs unprotected save by a light pair of cotton hose as far as the knee, and above, even to the waist, nothing but thin cotton drawers, for we do not call one or two light and short skirts, set off from all contact with the body by the hoop, any protection—hundreds of these children, between the ages of four and fourteen, were to be seen marching, like processions of half-grown ballet girls, upon the yet scarcely green grass of the Common, bathed, nay soaked, in this Arctic, aërial bath. Evil results must follow a holiday so inappropriate to our climate and so insanely observed. If they are not immediately demonstrable in school-houses filled with coughing and snivelling children or little sickbeds at home, they are none the less insidiously sowing or developing the seeds of pulmonary disease, which is either to cut off the child while young or to send another weak and crippled girl into womanhood unfitted for its duties.

We were pleased, then, to see the motion before the board of the School Committee to substitute the first of June for the annual Mayday holiday. Nature has established the fact that we have no spring in this latitude. It is useless, therefore, trying longer to convince her or ourselves to the contrary, and wicked to defy her by thrusting out into a treacherous season tender children clad in thinner than summer apparel. Were the School Committee powerless to break up the custom, we really think the police should receive instruction to place in confinement for the day all children found in the streets without proper clothing. Fortunately, however, that body can easily render any day they may choose to convert into a holiday a popular occasion, and the reminiscences of no native citizen can possibly be shocked by the proposed change. As to those of foreign birth, their associations with past joys of spring upon the green soil of their Emerald Island must yield to a more tender regard for the health of their present hopes. We noticed that a writer in the *Transcript* strenuously advocated that the change should be to the last day of May instead of the first day of summer, so that all the old associations connected with the month might not be lost. We think the School Committee has done wisely, however, in its choice, for the last week in May, "Anniversary week," is proverbially one of the most disagreeable of spring, while June is the most charming month of the year, and "then, if ever, come perfect days."

Mr. Gulliver's Hunterian Oration.—We presume that many of our readers may have seen, in some of the English medical journals, a report of the late Hunterian oration before the College of Surgeons, by Mr. Gulliver, of blood-corpuscle fame, and have been amused at the characteristic national glorification of the British scientific lion, and the forgetfulness of all other merit therein contained. The expression of contempt for American science has become so familiar to us, that like Roebuck's recent remark before the House of Commons, that we are "an insolent and upstart race," which was received with cheers, it is now only amusing. It is not, then, because of anything novel or particularly noteworthy in Mr. Gulliver's address that we now call attention to it, but to put upon record something which really is novel and unexpected, namely, the recognition of its merits by an English journal. The London *Lancet*, in a notice of Prof. Huxley's course of lectures on the vertebrate skeleton, an extract from one of which will appear in our next week's number, thus shows up Mr. Gulliver :—

"The fame which Owen gave to the Hunterian chair of Anatomy and Physiology Huxley is well capable of maintaining. Belonging to a new school of anatomists and zoölogists, of which in this country he may claim the headship—critical, keen and inquiring—Huxley and his fellow-workers are doing much to promote the advancement of science. Skeptical of theories and unbending to authority, sometimes harshly disregardful of the services rendered by the most illustrious patriarchs of their science, it is part of their mission to destroy as well as to construct, and many of the "idols of the cave" totter beneath their vigorous blows. Although Mr. Gulliver was gravely telling his listeners the other day that with Hunter, Hewson, himself and a few English friends, the race of physiologists had died out—and that Kölliker, Hasse, Henle, Wagner and the rest were very small fry indeed, albeit some people followed a fashion in speaking highly of them—it will be seen in the course of these lectures that in anatomy as in histology our most active English workers are progressing in unison with the Germans ; and that Huxley's labors go hand in hand with those of Joh. Muller, Remak, Reichert, Hallmann and Rathke—obscure individuals, of whom Mr. Gulliver may not have heard, but who have nevertheless contributed in the most important degree to the science of anatomy."

Disinfectants and their Application to Therapeutics.—Conclusions from facts contained in a memoir upon this subject published in the *Archives Générales*, by O. Reveil, Professeur agrégé à la Faculté de Médecine et à l'école supérieure de Pharmacie, &c. &c.

1st. That there probably exist many kinds of putrid fermentations, varying in their causes as in their effects ;

2d. That there is no general disinfectant capable of being indiscriminately used in all cases ;

3d. That liquid disinfectants are always preferable to others, other things being equal, when applied in therapeutics.

In their application to this purpose regard should be paid to their cost, the facility of their employment and the inconveniences they may cause by corroding, soiling or rendering unserviceable the linen dressings.

4th, The best disinfectant is that which possesses the following properties:—it should—A. Instantly destroy or mask bad odors; B. Absorb the liquid or gaseous products of the putrefactive or inflammatory process, remove them by washing and destroy the poisonous or irritating action of morbid liquids and mephitic gaseous products; C. Prevent the formation of new infections or mephitic products; D. Hasten the cicatrization of sores, by giving the necessary vitality for the reparation of the tissues.

5th, Chlorine, and solutions of bromine and iodine, appear to best fulfil the most important of these conditions.

6th, Chlorine, or at least the hypochlorites, by reason of the gaseous state of their active principle, ought always to be preferred when it is desired to destroy miasm and disinfect the air.

7th, The addition of odorous essences, and principally of nitro-benzine to the hypochlorites and to iodine- and bromine-water, acts both to mask the disagreeable odors and to set into immediate operation the chemical action.

8th, Tar and coal-tar preparations are able to render effectual service, but they do not possess the property, like iodine and bromine, of destroying the poisonous action of morbid products and putrefaction, or that of various kinds of virus.

9th, *Charpie carbonifère,* and especially *charpie carbonifère iodée,* may be often employed with success.

10th, Carbon, in addition to its absorbent properties, appears to exercise *an action of special contact,* in virtue of which it hastens the destruction of organic matters, or rather, as M. Stenhouse states, according to the experience of Turnbull and Turner, by condensing the oxygen of the air, and thus acting as spongy platinum.

11th, Metallic solutions (salts of iron, zinc, &c.), although imperfect disinfectants, suffice in a great number of cases.

12th, Physical and mechanical agents (ventilators, &c.) may be made powerful aids to chemical disinfectants.

13th, There are some causes of *infection* which appear to resist all treatment (ozæna, otitis, &c.).

14th, We should add, moreover, that there are causes of *infection* which it would be dangerous to suppress (*sueur infecte des pieds*), and the odor of which we should endeavor to mask.

One is struck with admiration on reflecting upon the processes which nature employs to disseminate, transform and reproduce organic matters; in the presence of the grandeur of these facts, we remain convinced of the exactitude of the aphorism of Lavoisier:—"*Dans la nature, rien ne se perd, rien ne se crée.*"

M. Reveil alludes above to the so-called fœtid foot-sweat, and thus sustains a popular error both of pathology and therapeutics. Fœtid foot-sweat does not exist. The perspiration is always fresh when secreted, and any peculiar individual odor is due to specific modifications in the sebaceous matter. It is only when the sweat has undergone decomposition upon certain portions of the body peculiarly adapted to such change, as the axillæ, beneath the mammæ, between the folds of the perinæum, &c., that the fatty acids thus formed give rise to a fœtid odor. So, too, when the feet are not frequently cleansed, and heavy coverings are worn upon them, the boot is apt to absorb the odors thus produced, and to become in turn the real offender. We have noticed this peculiarly disagreeable smell about the persons of several officers returning from the army, where thick stockings and heavy-top boots are often worn day and night without change for a considerable time. The idea of any dangerous consequences following simple cleanliness, which is the only disinfectant required, is absurd. The worst case of fœtid foot-sweat may be cured at once by casting away the stinking boots, and substituting thin stockings and light boots or shoes, and by washing the feet every day in soap and water.

Boston Medical Association.—The annual meeting of the Boston Medical Association was held on Monday, May 4th, 1863, at the room of the Mass. Medical Society, 12 Temple Place. Dr. J. M. Warren was appointed Chairman. Dr. C. D. Homans was re-elected Secretary. Drs. Shurtleff, Dale, Durkee, J. M. Warren, George Hayward, Jr., Standing Committee.

Joined during the year:—Drs. T. M. Drummond, H. F. Damon, M. S. Carpenter, S. W. Bowles, E. M. Skinner, W. C. Flowers, D. K. Warren, C. C. Street, Paschal P. Ingalls.

Died during the year:—J. B. Brown, David Osgood, Robert Ware.

The following gentlemen were appointed a Committee to make the Society known to those who are entitled to become members, and to induce them to join:—Drs. J. Homans, Shurtleff, Minot, together with the Chairman and Secretary.

The California State Lunatic Asylum.—The Report for 1862, by Dr. W. P. Tilden, alluded to in the last number of the *San Francisco Medical Press*, refers to the crowded state of the institution, which was peculiarly the case during the time of the great flood, when the outside wards of the building had two feet of water in them. The Asylum contains suitable room for only 250 patients, but had 499 crowded into it at the close of the year, 717 having been under treatment during the year. Of these last, 141 were discharged, 65 died, and 12 eloped. Of the 65 deaths, only 22 were from disease of the brain, and among these was but one female. Another asylum is needed in the State, and probably measures will soon be taken for the establishment of one.

The graduating class at the recent commencement of the Medical Department of the University of the Pacific, in San Francisco, numbered eight, two of whom were afterwards commissioned as assistant surgeons in the U. S. Volunteer Service.

Two recent Cases of Ovariotomy in France.—M. Valette, of Lyons, lately performed the above-mentioned operation on a patient 38 years of age. The lady had applied to M. Valette about four years ago, and, after repeated tappings, had been brought by the disease to so low a condition that the surgeon was obliged to consent to the operation of ovariotomy, loudly demanded by the patient. The latter died soon after the large cysts were removed, and M. Valette attributes the fatal issue to the shock of the operation, as there was neither peritonitis nor hæmorrhage. He determines that, in his next operation, opium and stimulants shall be more largely used. The *Gazette des Hopitaux*, of the 14th of February, also states that the patient on whom M. Nélaton lately performed ovariotomy has died. No details had then transpired. M. Valette's case is fully reported in a late number of the *Gazette Hebdomadaire.—London Lancet.*

AVERAGE BIRTH-RATE.—In Scotland 34,443 births were registered in eight towns (Glasgow, Edinburgh, Dundee, Aberdeen, Paisley, Greenock, Leith and Perth) during the year 1862, being in the proportion of 384 births in every ten thousand of the estimated population, or one birth in every twenty-six persons. Of these, 3,424 were illegitimate. To whatever cause it may be owing, certain it is that the proportion of illegitimate births seems to be increasing year by year.

The average birth-rate in London for the last ten years gives 337 births in every ten thousand of the estimated population.—*Ibid.*

POPULATION OF SPAIN.—For the first time a general statistical review of the movement of the population of Spain has lately been published. According to this, the number of births for the past year was 571,186; of deaths, 432,067; of marriages, 126,893. The statistics fail to give the total of the population; they only record one birth in 27 inhabitants, one death in 33, one marriage in 129; according to which the total number of inhabitants would be 15,500,000.—*Ib.*

DR. GUGGENBUHL, the founder and director of the Cretin establishment in Switzerland, has just died. He is reported to have left a large fortune.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MAY 9th, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - -	36	33	69
Ave. mortality of corresponding weeks for ten years, 1853—1863,	37.8	36.7	74.5
Average corrected to increased population - - - -	00	00	82.12
Death of persons above 90 - - - - - - -	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
10	5	4	3	0	0	2	1

COMMUNICATIONS RECEIVED—Rupture of the Uterus.—Hospital Notes and Memoranda.—Chloroform in Labor.

JOURNALS RECEIVED.—Medical and Surgical Reporter, vol. x., No. 1.—Medical News and Library, May, 1863.—The Dental Cosmos, May, 1863.—American Homœopathic Review, May, 1863.—American Medical Times, vol. vi., Nos. 18 and 19.—American Druggists' Circular, May, 1863.—London Lancet, March 7, 14, 21 and 28.—American Journal of Pharmacy, May, 1863.—London Chemist and Druggist, April 15th, 1863.—Eclectic Medical Journal of Philadelphia, May, 1863.

DEATHS IN BOSTON for the week ending Saturday noon, May 9th, 69. Males, 36—Females, 33.—Accident, 3—apoplexy, 1—congestion of the brain, 2—disease of the brain, 2—bronchitis, 1—cholera infantum, 1—consumption, 10—convulsions, 4—croup, 5—cyanosis, 1—debility, 2—diarrhœa, 1—diphtheria, 1—dropsy, 1—dropsy of the brain, 3—empyema, 1—erysipelas, 2—scarlet fever. 4—typhoid fever, 2—"a fit," 1—gangrene, 1—gastritis, 1—disease of the heart, 3—infantile disease, 1—intemperance, 1—disease of the kidneys, 1—laryngitis, 1—congestion of the lungs, 1—inflammation of the lungs, 3—premature birth, 2—puerperal disease, 1—rheumatism, 1—suicide, 1—unknown, 3.

Under 5 years of age, 28—between 5 and 20 years, 5—between 20 and 40 years, 17—between 40 and 60 years, 10—above 60 years, 9. Born in the United States, 44—Ireland, 18—other places, 7.

THE

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Vol. LXVIII. Thursday, May 21, 1863. No. 16.

HOSPITAL NOTES AND MEMORANDA.

By J. Baxter Upham, M.D., Surgeon in charge of Stanly Gen. Hospital.

Further Observations in regard to the Cerebro-spinal Affection occurring in and around Newbern, N. C.

In the previous numbers of the Journal, I have given some brief notes of individual cases of this affection as it presented itself in the wards under my charge, during the prevalence of the disease as an epidemic; these notes are necessarily fragmentary and imperfect, obtained, as they were, by snatches, in such intervals of leisure as could be found amid the pressing duties of a crowded military hospital. It is proposed, in the present paper, to offer some considerations as to the probable origin and nature of the epidemic in question, with a brief summary of such facts in regard to it as I have been able to collect.

The town of Newbern is situated upon the river Neuse, at its junction with the Trent, some forty miles from its entrance into Pamlico Sound. Both rivers are navigable for a few miles above their point of junction. There are no tides at this point, strictly speaking, but the depth of the water is greatly affected by the force and direction of the wind. The town itself is built on a flat and sandy soil, raised but a few feet above the water. The climate is generally mild and salubrious in winter and spring; hot, humid, and subject to malarial influences in summer and autumn. The country around is level, alternating with sandy plains and swamps for the distance of a mile or more from the outskirts of the town, beyond which begins the endless pine forest, almost impenetrable, with marshes and tangled undergrowth. The troops are encamped mainly just outside the town, in the driest spots practicable, with due reference to the salient points of attack and defence. They are sheltered partly in tents, partly in barracks, constructed in the manner hereafter described. The regiments most affected by the epidemic under consideration, were the 44th, 45th and 51st Mass. and the 10th Connecticut. The three first are composed of nine months' men, and had been stationed at Newbern less than two months when the disease appeared; the last-named is a three years' regiment, which had remained in or near its present locality ever since the capture of the town, by the troops under Burnside, a year ago. These regiments were quartered in barracks. Isolated cases of the disease also occurred in Wessell's Brigade, which came down from Suffolk just prior to the expedition to Goldsboro', in December, and in some of the other regiments sheltered in tents, among which were the 3d, 5th, 8th and 46th Massachusetts. The 24th Mass., an old regiment quartered in barracks, near the 44th, so far as I can learn escaped. This last, together with the 10th Conn., left the Department in the latter part of January, to join the expedition to Charleston, which was before cases of the disease became multiplied.

Of the regiments I have designated, the 44th Mass. and 10th Conn. were located on the right bank of the Neuse, some half a mile beyond the town, on a sandy and sterile plain, elevated perhaps five or six feet above the level of the river. The 44th, which suffered most, was nearest the bank; quite near the camp lay a couple of marshy bogs, small in extent, through which flowed a sluggish stream to the river. Water for drinking and culinary purposes was obtained mainly from wells sunk in the vicinity of the camp. It was brackish and unpalatable. The river water was also, to some extent, used.* Beyond and above the camp to the edge of the woods, as well as opposite towards the river Trent, a broad sandy plain stretches out to the extent of a mile or so. The woods in this direction have been extensively cut off, since the occupation of the town, for the better protection of the place. The camps of the 45th and 51st Mass. were similarly located on the right bank of the Trent, two miles above the town, on an alluvial sandy soil and flat surface, dotted with numerous small pools of stagnant water, some of which were embraced within the lines of the camp. The ground is here raised some twelve or fifteen feet above the river. The water, used in camp, was mostly obtained by means of a barrel sunk in the ground by the river's edge. From the river at this point to the swampy woods beyond, is perhaps three quarters of a mile. Over this plain, immense and barren, the winds have free sweep, bringing, in a dry time, a simoom of sand upon the camps.

The barracks for the sheltering of a portion of the regiments, as above named, were built late in the autumn, and are alike in their dimensions and plan of construction. They were made of green stuff—hard pine mostly—the logs being taken newly cut from the forest, or drawn out from the water, where they had been lying for a few weeks, sawn into joists and boards, and used in the fabrication of all parts of the building. Between huts of such material and tents for the winter, there was no alternative, dry lumber being a thing unattainable in the Department. Thus constructed, they were necessarily cold and damp, and redolent of pitch and paludal moisture. The regimental barracks were commonly built in a continuous line, not unlike a rope-walk in appearance, but sometimes in the form of a right angle, and are divided off into company compartments—each compartment being sixty feet in length by twenty-four feet in width, and eight and a half in height to the plate under the eaves, and having a pitch to the roof of three feet in five. A side elevation of a portion of one of these barracks is shown in the annexed cut.

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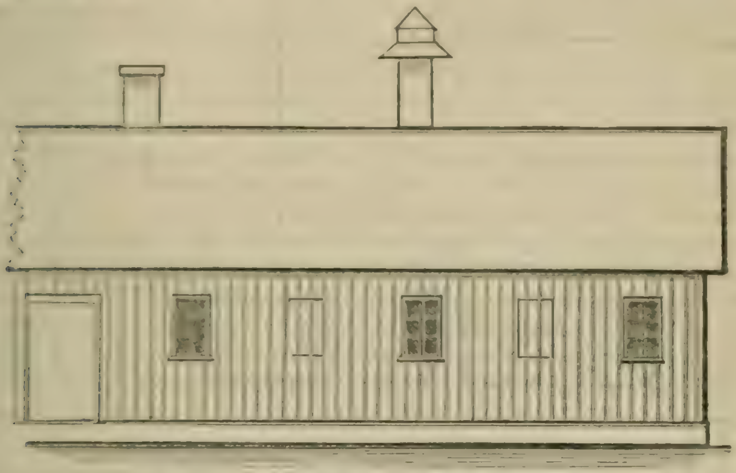
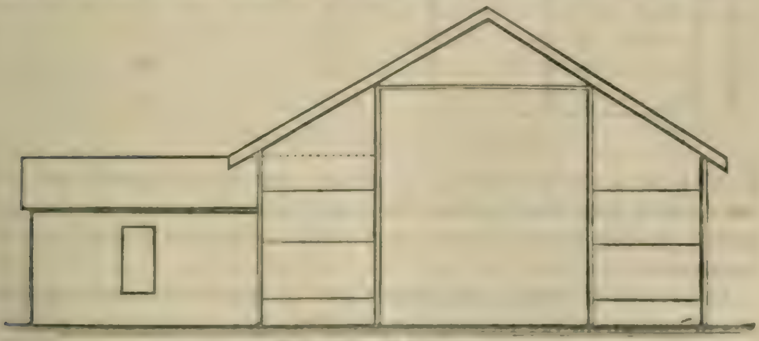
* An analysis of the water obtained from a well in the centre of the town—used for culinary and drinking purposes at the Stanly Hospital—showed it to be strongly impregnated with lime.



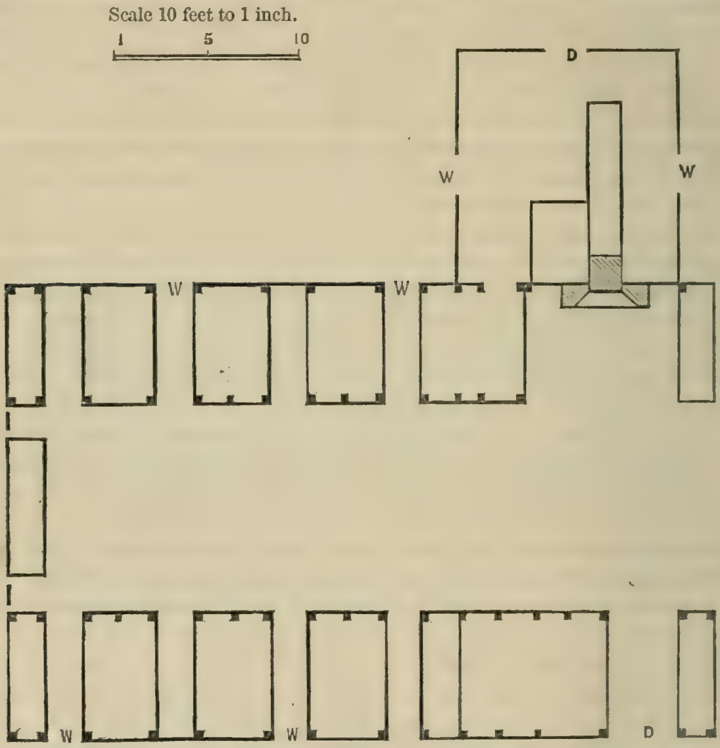
Side elevation of a portion of barracks for one company.

Ranged around the walls, and projecting longitudinally into the apartment, are the bunks for the men, in three tiers, each bunk being six and a half feet in length by four feet in width, and intended for



End section of barracks.

the accommodation of two men. The lowest is one foot above the floor; the perpendicular space between is three feet and the lateral space two feet. In these last-named spaces are the windows. Air is admitted through openings near the floor, between the bunks, and vented through occasional apertures at the ridge.* There is a fireplace in the side of each apartment, at about its centre, at which point the company kitchen extends out at right angles, furnished with oven, range, &c. These apartments are intended each for the occupancy of a company of about one hundred men—the allowance of air, in which case, is but about one hundred and eighty cubic feet to each man. Practically, the average number of men to each company does not much exceed sixty. In the best of circumstances, it will be seen, the supply of air is entirely inadequate and the ventilation imperfect; while light and warmth, owing to the projection of the bunks, cannot be generally diffused throughout the apartment.



Ground-plan of a portion of company barracks.

In *its mode of attack*, the disease was commonly sudden and without premonition, the patient, for the most part, continuing on duty and making no complaints till the very day of his seizure. Some of the most violent cases thus commenced; Case XII., previously cited, is in point, where the soldier appeared with his company at the evening dress parade, complained of chilliness, headache, &c., during the night, and was dead within thirty-six hours following. And the subjects of the disease, in most cases, were those previously in the fulness of robust health—between the ages of 18 and 24—who had endured hardships and exposures with impunity.

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* Additional openings, for both light and air, have been made since these buildings were first occupied by the troops.

The *symptoms* were, at the first, headache, referred oftentimes to the back part of the head particularly, with dizziness—pain in the back and limbs, this last occasionally of an excruciating character—with sometimes rigors, and nausea and vomiting. Chilliness, rather than a well-defined chill, characterized the accession of the disease. A peculiar stiffness in the muscles of the face and neck was often an early symptom; this would be followed by local spasms, perversion of vision, &c. In some cases the initiatory symptoms were those of a severe cold, with a disposition to paralysis of the tongue and a portion of the muscles of the face. With this the respiration would be difficult and irregular, giving occasion to fear a congestive attack of the lungs. There was often tenderness at the nape of the neck and along the spine early in the disease. The skin was usually moist, but hot. The face was suffused—often of a dusky hue—and the features distorted in the manner before mentioned—the eyes congested and suffused. There was not, for the most part, active delirium—but perversion of intelligence rather, and dulness and indifference to outward objects, from which condition the patient could be roused and made to answer questions consciously. The tongue had, at the first, a white creamy coat, which, in the course of the disease, became yellowish or brown at centre and base, more rarely dry and cracked towards the close. There was loss of appetite, but usually not very urgent thirst. The heart's action was irregular, sometimes tumultuous, to which the pulse did not always respond, being mostly accelerated but not strong—occasionally intermittent. The bowels were regular, or inclined to diarrhœa and costiveness by turns. Petechiæ were not an unfrequent manifestation—in appearance almost identical with the true typhus eruption, and like that seen upon every part of the body except the face—persistent on pressure, varying in hue from the darkest aspect of measles to that of the true petechial spots imbedded in the skin. Purpural spots, abundant and of large size, were sometimes present, and were always a grave symptom. There was no marked tenderness of the epigastrium or abdomen. In the cases of longer duration, there was in the last stages sordes on the teeth and lips, and involuntary evacuations of urine and fæces. The patients often die without much symptoms of exhaustion. The decubitus was mainly on the side, with the head not unfrequently thrown back—the neck rigid and stiff—a partial opisthotonos. There was uniformly great restlessness and jactitation. As an accompaniment and occasionally a sequel to the disease, iritis was several times observed. So, also, was synovitis—and, in one instance, pericarditis. The above are among the more prominent and constant symptoms—but there was a considerable diversity in the manifestations of the disease during its progress, whether towards a favorable or fatal result; in no one case do I remember to have seen even a majority of those I have enumerated present.

Singular and anomalous symptoms were sometimes noticed. Dr. Jewett, Surgeon of the 51st Mass. Reg't, to whom I am indebted for a clear and able account of the disease, as it occurred in the troops under his care, reports that, "in a single case, a pleasing delirium was noticed, with loquacity and decidedly erotic desires, accompanied with priapism more or less extensive during the greater part of the disease." This peculiarity, he adds, was noticed in about one third of his cases. Dr. Cowgill alludes to the same fact. Dr. Jewett noticed the decubitus upon the dorsum among fourteen cases which occurred in the 51st Mass. Regt. in but a single instance. "In all the others," he observes, "the patients lay upon the side till near the close of life." "In a few cases, and those the most severe ones," he also remarks, "no moan or sound of any kind escaped the patient, but there was a fearful restlessness which ceased only at death; in others there was much moaning." Stiffness of the muscles of the neck and back, or some perverted action of the muscles of the face, before alluded to, amounting at times to spasm, was almost pathognomonic. In some form, this affection was present in nearly all the cases sent in by Dr. Ware; it was common in those treated in Academy Hospital. Dr. Jewett speaks of it as being present in fully one third of the cases which came under his observation, "there being," as he says, "more or less stiffness of the muscles of the neck and back, with opisthotonos—in one case paralysis of the glosso-pharyngeal nerve, and in two others eversion of the eyes and occasional squinting."

The *duration* of the affection varied from a period of less than thirty-six hours, to that of three, four or six weeks, and even longer. According to my own observation, the more usual duration has been from three or four to seven days. Of the twenty-one fatal cases, recorded in the preceding pages, death took place—

In 2 cases on the 2d day;
In 5 cases on the 3d day;
In 5 cases on the 4th day;
In 1 case on the 5th day;
In 1 case on the 6th day;
In 1 case on the 8th day;
In 1 case on the 10th day;
In 1 case on the 14th day;
In 2 cases on the 22d day;
In 1 case on the 34th day;
In 1 case on the 36th day.

Of the five cases mentioned by Dr. Kneeland, which occurred among the members of the 45th Mass. Reg., four proved fatal within thirty-six hours from the onset of the disease, and one on the fourth day.* And of fourteen deaths, mentioned in the communication from Dr. Jewett, the greatest duration of the disease was twenty-three days, the least one day.†

The *age*, when it could be obtained, of the patients attacked, in the cases hereinbefore recorded, was found to vary from 17 to 31 years, in the proportion as follows, viz.:—

In 1 case the age was 17 years.
In 4 cases the age was 18 years.
In 3 cases the age was 19 years.
In 2 cases the age was 20 years.
In 4 cases the age was 21 years.
In 2 cases the age was 22 years.
In 2 cases the age was 23 years.
In 1 case the age was 27 years.
In 1 case the age was 28 years.
In 1 case the age was 31 years.
In 1 case the age was 32 years.

Of Dr. Jewett's fourteen cases, the youngest was 16 years of age, the oldest 30 years; the average 20 years.

In regard to the *prognosis*, it was generally unfavorable. Of about forty cases received into the Stanly General Hospital—and which were regarded as genuine examples of the disease—twenty-eight proved fatal. Of the five cases mentioned by Dr. Kneeland, all died.‡ And of the fourteen communicated by Dr. Jewett, all were fatal. Dr. Cowgill has reported five well-authenticated cases of recovery, out of twelve treated in the Academy Hospital, under his charge—being the largest ratio of recoveries in proportion to the number of cases received.

[To be continued.]

ON THE CLASSIFICATION OF MAMMALIA.

By Professor T. H. Huxley, F.R.S.

The battle-ground of classification is now confined to the orders of Monodelphia. Some will not admit the order of Toxodontia; by others the Primates are divided into Quadrumana and Bimana; again, others unite Sirenia and Cetacea. But it is useless to enter upon this ground, and we must ascertain how these orders may be arranged, by clear and definite characters, into larger divisions. The earliest attempts at this were made by Sir Everard Home, but his definitions were very rough and are not worth mentioning. He spoke of the characters of the placenta in different mammals. The next step was taken by Mr. Waterhouse, who was struck by the form of the brain in Mammalia, and divided the Monodelphia or Placentalia into two groups.

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* See Dr. Kneeland's letter to the Surgeon-General of Massachusetts, in the *Boston Medical and Surgical Journal*, March 12th, 1863.

† A well-authenticated case, under the care of Dr. Haddock, has just proved fatal on the 34th day. Unfortunately, no *post-mortem* investigation could be obtained.

‡ Three of these were treated in regimental and two in general hospital. See Dr. Kneeland's letter, before referred to.

Placental Mammalia.
- I. Those possessing a smooth brain. (Waterhouse.)
- *Lissencephala* (Owen)
  - Cheiroptera.
  - Insectivora.
  - Rodentia.
  - Edentata, or Bruta.
- II. Those having a convoluted brain. (Waterhouse.)
- *Gyrencephala* (Owen)
  - Quadrumana.
  - Carnivora.
  - Cetacea.
  - Proboscidea.
  - Peristodactyla.
  - Artiodactyla.
  - Sirenia.
- *Archencephala* (Owen) ...Homo.

Mr. Waterhouse does not, however, mention Man. After that, in 1844, Milne-Edwards proposed another classification, based on the characters of the placenta, having, however, nothing to do with Sir Everard Home's. He pointed out four, or rather three, different forms of placentæ. In the first the villi are scattered over the chorion; the second form has these united in knobs (cotyledons). The first is a *diffuse* placenta; the second a *cotyledonary* one; but in reality they are the same form modified. In the third kind the villi form a ring round the ovum, constituting a *zonary* or *zonular* placenta; and lastly, in the fourth it is cake-like, and is termed a *discoidal* placenta. This exists in Man, Apes, Insectivora, Cheiroptera, and Rodentia. The Carnivora possess a zonular placenta. In the rest it is either diffuse or cotyledonary. (In Hyrax it simulates a zonular form.) In 1859, Professor Owen, in a paper read before the Linnæan Society, and printed in that Society's Proceedings for the year, returning to the cerebral characters, put forth another classification of Mammalia, calling Mr. Waterhouse's smooth-brained mammals Lissencephala (as shown in the preceding table); those with convoluted brains, Gyrencephala, and for Man he formed the subclass, Archencephala. Now here are three classifications; which of them is the most worthy of adoption? That is to say, which explains, in the clearest and most definite way, the anatomical characters of the groups which it contains? Prof. Huxley began with the last mentioned. First of all, do the differences said to exist between the brains of Archencephala and Gyrencephala, and of these and Lissencephala, really exist? We shall see; and it is better to give Professor Owen's own words to avoid mistakes. These are the characters he gives to his Lissencephala:—"The next well-marked stage in the development of the brain is where the corpus callosum is present, but connects cerebral hemispheres as little advanced in bulk or outward character as in the preceding sub-class (Lyencephala containing Implacentalia), the cerebrum leaving both the olfactory lobes and cerebellum exposed, and being commonly smooth, or with few and simple convolutions in a very small proportion composed of the largest members of the group. The mammals so characterized constitute the sub-class Lissencephala."

Professor Huxley then exhibited the brains of an anteater and a capybara (both Lissencephala); they were abundantly convoluted. He then showed the brain of a genett (Viverra), nearly quite smooth, as is also that of marmoset monkeys, these being placed among Professor Owen's Gyrencephala, which he thus characterizes:—

"The third leading modification of the mammalian cerebrum is such an increase in its relative size that it extends over more or less of the cerebellum, and generally more or less of the olfactory lobes. . . . . The superficies is folded into more or less numerous gyri or convolutions, whence the name Gyrencephala, which I propose for the third sub-class of Mammalia."

It is a puzzling thing to appreciate the value of sub-classes placed in such a position. How can a Lissencephala have a convoluted brain and a Gyrencephala a smooth brain? These distinctions may do as far as general characters are concerned, but can never form the definition of a sub-class. And now for Professor Owen's last sub-class, which he defines in the following manner:—

"In Man the brain presents an ascensive step in development higher and more strongly marked than that by which the preceding sub-class was distinguished from the one below it. Not only do the cerebral hemispheres overlap the olfactory lobes and cerebellum, but they extend in advance of the one, and further back than the other. Their posterior development is so marked that anatomists have assigned to that part the character of a third lobe. It is *peculiar to the genus Homo, and equally peculiar is the posterior horn of the lateral ventricle and the 'hippocampus minor,'* which characterize the hind lobe of each hemisphere. . . . . I am led to regard the genus Homo as not merely a representative of a distinct order, but of a distinct sub-class of the Mammalia, for which I propose the name Archencephala."

To all who understand plain language, said Prof. Huxley, the meaning of this paragraph is quite clear. When a man gives certain characters as peculiar to one group, he must mean that they are found in that and no other. The lecturer then proceeded to put before his audience facts in opposition to Professor Owen's statements. First, the backward extension of the posterior or third lobe further than the cerebellum is anything but *peculiar* to Man, as Professor Huxley showed by the cast of the interior of the skull of a gorilla (as everybody knows, the cast of the interior of the skull in all mammals gives a very good and exact idea of the form of the brain, as in them this organ fills up completely the cavity of the skull); and placing it so that the tentorial plane was horizontal, he showed how the cerebellum was completely covered by the posterior lobes, so that a plane object held perpendicularly to these cannot touch the cerebellum. It is quite easy to demonstrate this fact with the skull alone. Drawing a line from the lateral sinus to the margin of the pars petrosa—attachments of the tentorium—the overlap is then perfectly clear. And when one comes to the lower apes, baboons, and others, it is obvious on examination that the cerebellum is overlapped to a far greater extent than in Man; and, as T. Geof. St. Hilaire showed long ago, this attains a maximum degree of development in the Chrysothrix—small American monkeys. The same occurs with the posterior cornu, which in Man is sometimes very short, and with the "hippocampus minor"—both being extremely variable. Where the posterior lobe and its posterior cornu exist, the hippocampus minor is always present; it is a prominence on the floor of the posterior cornu, formed by a pushing in, as it were, of a particular sulcus on the inner and under surface of the posterior lobe parallel with the horn. Now, all these structures certainly exist in many apes. Mr. Marshall has shown them in the chimpanzee, Dr. Rolleston in the orang, in which these structures are very largely developed, and, as Prof. Huxley showed with specimens he had, larger comparatively than in some men. The same is the case with the gorilla, and by far the largest number of apes. The lecturer said that he could not understand how, when these characters, said to exist, do not, the two sub-classes, Gyrencephala and Archencephala, can be separated; and surely, even if these did exist, no sound zoölogist would make such variable characters the basis of a classification, these being the last structures in the world to base definition on. Thus the sub-classes Gyrencephala and Archencephala fall to the ground. The structures above referred to vary so much, that in two genera of apes—the South American *Mycetes*, and, as Mr. Flower has recently shown, the Gibbons *(Hylobates)*—the cerebellum projects slightly; and in the last, one of the genera of the manlike apes, the cerebellum is so large that it projects not only posteriorly, but also laterally.

Let now more positive grounds occupy our time. Milne-Edwards laid great weight on the form of the placenta, but not on its structure—a much more important if not valid character, forming the basis of a classification which is at present the most certain. In all placental mammals examined, the formation of the placenta is preceded by a swelling and increased vascularity of the walls of the uterus, forming the "maternal placenta," into whose depressions and sinuosities the villi of the fœtal placenta dip and interlock; this takes place so firmly in some mammals that at birth the maternal comes away with the fœtal placenta. These may thus be said to have a *coherent placenta*; while all the rest, in which the fœtal placenta alone comes away, have an *incoherent placenta*. As far as our present knowledge goes, this classification holds good for all, and moreover does not break natural affinities. Some say that it is unnatural because it groups together very dissimilar animals, such as men, apes, bats, rodents, hedgehogs, and shrews; but anybody who has studied the so-called Quadrumana is well aware that in them forms exist quite as low as any of these, and differing extremely in many characters one from another—from the gorilla, with a dentition, uterus, and many other organs similar to those of men, tailless and walking nearly erect, to the lemur, possessing a totally different dentition, walking on all fours, and provided with a long tail; and yet nobody has ever doubted that it is one of the Quadrumana, and certainly not the lowest, for in them we have such animals as the tarsius, the rodent-like cheiromys, and the bat-like galeopitheeus, feeding on insects, and possessing an intelligence inferior to that of many mammals not belonging to that group. Another question remains. Are we justified in classifying men and monkeys together? The comparison of the human skeleton with that of a gorilla, an orang, a chimpanzee, or any of the higher apes, will answer the question, and show at a glance the great resemblance and similarity there is between them. Now the gorilla, for example, is admittedly placed in the same order as the lemur, the cheiromys, and the galeopitheeus, which differ, as we have seen, far more from it than it does from man. Thus we cannot but place them in the same order, or else all our notions of affinities and resemblances fall to the ground. The following is a table giving the best classification of mammals we possess:—

MAMMALIA.

IMPLACENTALIA.

Ornithodelphia.	*Didelphia.*
Monotremata.	Marsupialia.

PLACENTALIA.

Monodelphia.

Placentæ Incoherent.	*Placentæ Coherent.*	
	Pl. zonary.	*Pl. discoid.*
Edentata.	Carnivora.	Insectivora.
Sirenia.		Rodentia.
Toxidontia. (?)		Cheiroptera.
Proboscidea.		Primates.
Peristodactyla.		
Artiodactyla.		
Cetacea.		

[*London Lancet.*

PLEURO-PNEUMONIA has again appeared as a disease among cattle in some parts of Massachusetts. Twenty-four cows, valued at $620, were lately slaughtered in Waltham on account of being affected with it.

Bibliographical Notices.

Chemistry. By William Thomas Brande, D.C.L., F.R.S.L. & E., of Her Majesty's Mint. Member of the Senate of the University of London, and Honorary Professor of Chemistry in the Royal Institution of Great Britain: and by Alfred Swaine Taylor, M.D., F.R.S., Fellow of the Royal College of Physicians of London, and Professor of Chemistry and Medical Jurisprudence in Guy's Hospital. Philadelphia: Blanchard and Lea. 1863. 8vo. Pp. 696.

A need has been long felt by those engaged in instruction of a proper text-book on general chemistry. Hitherto the treatises employed for that purpose have been either too simple and elementary, or too condensed or extended, for any but the youthful beginner or the special student of the science. The masters of the art have seldom been willing to devote their pens to aught else than the cultivation of its special or higher branches, and when they have attempted to present a general view of its condition at the present time, the result has been a work too profound and technical for any but the most advanced scientific student. It is chiefly owing to the character of the text-books put into his hands during his collegiate or school training, that the medical student comes to his professional studies possessed, as it were, of a kind of antipathy to the practical pursuit of a branch of study he recognizes in the abstract as one of the most important. There is no course of lectures more faithfully attended or enjoyed than that upon chemistry, and yet none is so little accompanied by collateral study and reading, and consequently none so soon forgotten. This leads to constant regret in after life, and there is probably hardly a physician who does not many times a year wish himself once more a student, that he might study as he ought an art so indispensable at the present day to any but the most superficial knowledge of physiology, diagnosis and therapeutics. Seldom a day passes, the dispensing druggist will tell you, that he has not occasion to witness a display of this ignorance in the incompatible recipes presented to him by the patients of otherwise well-informed medical men, and very few would be able to judge by tests of the purity of the drugs they prescribe. This should not be; no physician should employ a remedy, with the qualities of which he is not fully acquainted. As it now is, we leave entirely to the druggist the selection and character of the means we employ against disease, and fortunate, although humiliating, for us is it, that he generally possesses the knowledge we are wanting in.

We have for a long time felt that the preparation of a proper chemical text-book for students would be time better spent than in the invention of a novel system of classification or the discovery of half a dozen new elements ending in *ium*, which are increasing in number about as rapidly as the asteriods. We believe this want has at last been satisfied in the book now before us, which has been prepared expressly for medical students by two of the most experienced teachers of the science in England. In the preface they state that their

> "Intention in the preparation of this volume has been, not to furnish a Treatise on the Science, but to provide the student, and general reader, with a plain introduction to the subject. With ample materials at our disposal to produce two volumes in place of one, we have studiously endeavored to compress within these

pages, a selection of the more important facts and doctrines of Modern Chemistry. We have adopted for the explanation of these facts, that simple chemical language which has found acceptance in the schools and colleges of Great Britain, France, and Germany, as well as in the best treatises on the Science.

"In addition to the general properties of bodies, we have attached to the description of each substance, a summary of its most important characters, with an account of the special tests required for its detection. The student will thus have in this book a Manual of Practical Chemistry. . . . .

"Having been engaged in teaching Chemistry in this metropolis, the one for a period of forty, and the other for a period of thirty years, it has appeared to us that, in spite of the number of books already existing, there was room for an additional volume, which should be specially adapted for the use of students. In preparing such a volume for the press, we have endeavored to bear in mind, that a student in the present day has much to learn, and but a short time at his disposal for the acquisition of this learning. An eminent writer has truly observed, that the whole circle of the sciences is required to comprehend a single particle of matter; but *ars longa, vita brevis.* If a medical student has before him only a few years for acquiring a knowledge of at least eight sciences, the efforts of those who contribute to the literature of these sciences should be directed to the elucidation of the most important facts and principles, omitting altogether those details which are either of a controversial nature, or are not yet established on a satisfactory basis. In reference to this book, it may be considered by some, that we have assigned too little, and by others, too much, space to our subject. This, however, is a question of opinion, on which persons may reasonably differ. We have taken that which seemed to us to be the proper course; and we trust we have so dealt with the principles and practice of Chemistry, that the contents of this book will prove useful to the general as well as to the professional reader."

The work is divided into four parts. The first is a general introduction to the science, and treats of matter and its properties, &c. The second comprises a description of the metalloids, the third of the metals, and the fourth embraces organic chemistry. There are two features about it which might at first strike the reader as defects, but which in our estimation rather enhance its value, namely: an absence of any chapter on physics and of all illustrations. Enough of the former has been introduced in connection with the chemical descriptions of the various elements and bodies, and the student is properly referred to special text-books for the necessary information on pure physics. As to illustrations, if at all fully given, they would occupy more space in a handbook than their importance would justify. The student really does not need them. An entire course of elementary analysis may be satisfactorily conducted with only a few dollars worth of simple apparatus, and indeed any of the processes likely to be employed either by the student or physician in pathological chemistry or toxicological researches require only a few tubes and watch-glasses. The complicated machinery and imposing apparatus figured in the books are used only upon the lecture-table, and are more properly described in large treatises or in the illustrated catalogues of the dealers. The book is intended for hands too old to need the aid of pictures to awaken in them an interest, and we doubt not the text will prove so interesting to all who examine it that the figures will not be missed. In place of wood-cuts, however, the descriptions throughout the volume are drawn from common phenomena, and are novel, practical and unusually entertaining. The first part abounds in apt definitions of the terms applied to natural and chemical laws, and the whole introductory portion is clear, attractive, original and simple. We cannot do better than to give brief extracts from each of the four divisions of the book, taken without reference to the merit of the selections.

In connection with spectral analysis, of which an extremely interesting account is given, we find, on page 58—

> "Bunsen estimated that the amount of sodium which admitted of detection by prismatic analysis was the 195,000,000th part of a grain; of lithium the 70,000,000th; of potassium the 60,000th; of barium the same; of strontium the 1,000,000th; and of calcium the 100,000,000th of a grain!
>
> "The delicacy of the sodium reaction accounts for the fact that all bodies, after a lengthened exposure to atmospheric air, show, when heated, the sodium line. Even ignited air and all kinds of dust show the yellow tinge of sodium. Fine platinum wire or foil, however clean, if exposed to air for a short time, has been observed to give a yellow color to flame, owing, as it is supposed, to the deposit upon its surface of sodium derived from the atmosphere. Three-fourths of the earth's surface are covered with sea-water, and the minutely diffused chloride of sodium may, it is supposed, be thus spread through the whole of the atmosphere. Lithium, which was supposed to be a rare metal, also appears by this mode of analysis to be very widely distributed. Bunsen found it in about an ounce and a half of the waters of the Atlantic Ocean; in the ashes of kelp from Scotland; the ashes of tobacco, of vine-leaves, and of plants growing on various soils. It was found in the milk of animals fed upon these crops, and it was detected by Dr. Folwarczny in the ash of human blood and muscular tissue. It has also been discovered in the residue of Thames-water, in Stourbridge clay and in meteoric stones. It is a curious fact that the intermixture of these alkaline metallic compounds does not materially interfere with the optical as it does with the common steps of a chemical analysis. Thus a drop of sea-water shows at first a sodium-spectrum; after the volatilization of the chloride of sodium—a calcium-spectrum appears, which is made more distinct by moistening the platinum wire with hydrochloric acid. By treating the evaporated residue of sea-water with sulphuric acid and alcohol, potassium and lithium-spectra are obtained. The strontium reaction is best procured by digesting the boiler-crust of sea-going steamers in hydrochloric acid, and employing alcohol as a solvent. By this process of analysis, most mineral waters are found to contain all the alkalies and alkaline earths excepting the compounds of barium.
>
> "The different degrees of volatility in the alkaline metals are favorable to their detection in a state of mixture. Thus a solution containing less than the 600th of a grain of each of the following chlorides—potassium, sodium, lithium, calcium, strontium, and barium—was brought into the flame. At first the bright sodium line appeared, and when this began to fade, the bright-red line of lithium was seen, while at some distance from the sodium line the faint-red line of potassium came into view, and with this two of the green barium lines; the spectra of the potassium, sodium, lithium, and barium salts gradually faded away, and then the orange and green calcium lines showed themselves in their usual positions.—(*Phil. Mag.*, Aug., 1860, p. 106.)"

The seventeen chapters on the metalloids will be found to contain an unusual amount of matter, both new and interesting, and of great practical importance to the physician. The chapter on Waters is extremely valuable, and in it will be found the following relating to arsenic:—

> "Chalybeate waters abound in the Rhine district, and they are also very numerous in France. In some of the waters of Aix-la-Chapelle, the iron is combined with the crenic and apocrenic acids. One curious fact connected with them is, that they generally contain traces of arsenic. This ingredient may be found in the mineral water itself, but more commonly in the sediment. In France, no fewer than forty-six waters, including the six springs of Vichy and the waters of Mont d'Or and Plombières, are thus impregnated with arsenic. The Vichy water is said to contain the 125th part of a grain of arsenic in a gallon.

"The tonic and other medicinal properties of these waters are now considered to be due, at least in part, to the arsenic which they contain. The Wiesbaden water, according to Dr. Hofmann, contains one grain of arsenic in 166 gallons (*Chem. News*, Aug. 11, 1860). The waters of Spa and Kissengen are also arsenical. The arsenic is probably in the state of arsenite and arseniate of iron, and is held dissolved in minute proportions by the carbonic acid of the water. It is precipitated in the sediment with oxide of iron. The arsenic has probably been derived from the decomposed iron-pyrites in the strata, and to this cause may be ascribed the presence of arsenic in some of the river waters of this country. It has been found in the water of the Whitbeck, in Cumberland, by Mr. Church (*Chem. News*, Aug. 25, 1860). We have detected it in the water of the Mersey, supplied to a large town, in the proportion of one grain of arsenic in 250 gallons, and Dr. Miller discovered arsenic in a potable water from Suffolk. Mr. D. Campbell and ourselves discovered this mineral in the sediment of some small streams of Derbyshire, and there is but little doubt that if waters traversing mineral districts were examined by chemists, with a view to its detection, arsenic would frequently be found, either in the water or in the sediment. We have detected arsenic in two ounces of dry Thames mud. Its alleged presence in the deposits of boilers may receive an explanation from these facts. It is not found in all chalybeate waters. We have made two analyses of 50 and 100 grains respectively of the ochreous deposit of the Tunbridge water without detecting any trace of arsenic, so that carbonated chalybeate waters do not necessarily contain this mineral

"A carbonated chalybeate water is known, 1, by its inky taste; 2, by its giving, when boiled, a grayish-green deposit, which becomes ochreous on standing; 3, by its acquiring a pink or purple tint when tincture of galls is added to it; 4, by boiling it with a few drops of diluted sulphuric acid, and adding to it a solution of ferrocyanide of potassium, when Prussian blue is precipitated; 5, paper soaked in an infusion of rose petals, when dipped in this water, acquires a dark color (tannate of iron)."

In connection with the deodorizing power of charcoal, the authors say:—

"To this catalytic property may be ascribed the power which charcoal possesses of absorbing and removing foul effluvia (*see* p. 212). A small quantity of powdered charcoal shaken in a jar of air containing sulphuretted hydrogen gas, soon removes the smell. If water, containing sulphuretted hydrogen, is filtered through charcoal, it is speedily deodorized. The gas is first absorbed, and by a catalytic action the oxygen of the air unites to the hydrogen, while sulphur is deposited. The charring of the interior of a cask, intended to hold water for use at sea, has a similar influence on foul water put into it. Sulphuretted hydrogen is so completely removed, that the usual tests for the gas will fail to indicate its presence. Pans of powdered charcoal placed about a room in which there are foul effluvia, are thus efficacious in removing them. Putrescent animal matter is deprived of its offensiveness by covering it with powdered charcoal. If the charcoal should lose its power by long use, it may be easily restored by again heating it.

"Experiments on a large scale have been performed by Dr. Letheby and Mr. Haywood, in order to determine how far charcoal could be practically employed for destroying the effluvia of public sewers. Well-dried charcoal, broken to the size of a filbert, was placed in trays in the current of air proceeding from a sewer—it thus acted as an air-filter. The result was most satisfactory: the foul effluvia were arrested and destroyed, and the charcoal, after from nine to twenty months' use, when treated with water, yielded an abundance of alkaline nitrate, a fact which proved that it had caused the oxidation of nitrogen in ammonia and other nitrogenous compounds. The absorbing and oxidizing powers of charcoal were greatly diminished when it was saturated with water, hence; owing to the absorption of moisture, the sieves required changing once in three months. If the charcoal is kept dry, there appears to be no limit to the oxidizing action of this substance. There can be no doubt from these experiments, that, by a proper use of powdered charcoal, the noxious effluvia of drains and sewers—the vehicles of typhoid fever

—may be prevented from entering our dwellings. (*Report to Commissioners of Sewers*, Feb., 1862.)"

Referring to the properties of carbonic oxide, it is stated that—

> "Boussingault has lately made the discovery, that this gas, with light carburetted hydrogen, in the proportion together of 3 or 4 per cent., is eliminated by the green parts of vegetables under the influence of water, light and heat. This may arise from the decomposition of carbonic acid in vegetation, not being so complete as it has been hitherto supposed to be. If this observation be confirmed, it will show that while vegetation aids in purifying the air, it leads to the evolution of small quantities of one of the most deadly gases known to chemists; and differing from some other noxious gases in the fact that it cannot be recognized by its odor, or, in the small proportion in which it exists, by any other sensible properties. Aquatic plants and those growing in swampy places, evolve it in greater proportion than those growing on a dry soil (*Cosmos*, Nov. 22, 1861). Is this gaseous poison the secret cause of the unhealthiness of such localities?"

Part 3d presents a concise view of all that is known at the present day in relation to the metals, and the arrangement of their various salts seems to have been specially adapted to the wants of the student of materia medica. We need not say that the toxicological properties of lead, copper, arsenic, antimony and mercury are treated of in a way we should have expected from the reputation of one of the authors, and the tests for their presence in organic compounds are fully given. Particular instruction is also furnished in the processes necessary for the detection of the adulteration of drugs. We subjoin a few extracts from this part of the volume, but have not space to quote at a just length the most important portions. The frequency with which arsenic is met with in many substances used by the physician is thus stated:—

> "Traces of arsenious acid are not unfrequent in various chemical and pharmaceutical preparations: it has been detected in sulphuric, hydrochloric, nitric, acetic, and phosphoric acids, in phosphate of soda, and in emetic tartar. The preparations of bismuth and copper frequently contain it; and it is not unfrequently found associated with the hydrated oxide of iron, in the ochreous sediments of spring and river waters (page 138). This acid is used in many of the arts, especially in color-making, dyeing, and calico-printing; it is also used in medicine, and in a variety of preparations for the destruction of vermin. It is much employed in the steeping of seed-corn for the purpose of destroying the spores of fungi. In the small quantities in which it is commonly sold to the public it is directed to be colored with indigo or soot, a circumstance which must be borne in mind in searching for it in cases of poisoning. It is a powerful irritant poison, and has destroyed the life of an adult in the small dose of two grains. It is rapidly absorbed into the blood, and is equally fatal whether it is taken by the mouth or applied to a wound."

A very simple process for the recognition of arsenical greens will be found in the following paragraph:—

> "ARSENITE OF COPPER $2(CuO)\ AsO_3$, *Scheele's green*; ACETO-ARSENITE OF COPPER, *Schweinfürth green* $3(CuO,AsO_3)+(CuO,C_4H_3O_3)$ are green pigments much used in the arts. The latter, known also by the name of *Emerald green*, from its rich green color, containing 59 per cent. of arsenious acid. It is much employed in the coloring of paper-hangings and various articles of dress, as well as in the coloring of confectionary. When an alkaline arsenite is mixed with a solution of sulphate of copper, a precipitate of an apple-green color falls (*Scheele's green*), used as a pigment; it is prepared by dissolving 2 parts of sulphate of copper in 44 of hot water, and gradually adding to it a solution of 2 parts of carbonate of potassa and 1 of arsenious acid in 44 of hot water, the whole being well stirred during mixture: the arsenite of copper, in the form of a fine green

powder, is gradually deposited, and is to be washed and dried at 212°. A similar preparation, known under the name of *Schweinfurth green*, is made as follows:—50 lbs. of sulphate of copper and 10 of lime are dissolved in 20 gallons of vinegar, and a boiling-hot aqueous solution of 50 lbs. of arsenious acid quickly stirred into it: the precipitate is dried and reduced to a fine powder. This green pigment, by reason of its being very loosely laid on paper-hangings, is liable to be diffused in the air of a room, and under these circumstances it has in some cases given rise to the usual well-marked symptoms of chronic poisoning. Its employment on articles of dress and confectionery has been attended with more serious consequences. The following is a simple method of detecting arsenic in the colored substance. Cover a portion of the green paper with a solution of ammonia. The green pigment is dissolved and forms a blue solution with the ammonia, owing to the oxide of copper with which the arsenic is combined. Place a few crystals of nitrate of silver in a porcelain capsule, and pour upon them a few drops of the ammoniacal solution. If arsenic is present the crystals will acquire a superficial yellow color by the production of yellow arsenite of silver (*see* page 443). A small proportion of the green powder, when heated in a reduction-tube, yields a sublimate of octahedral crystals, which may be easily identified as arsenious acid."

Those interested in Photography will find this subject and its latest modifications treated at length and in a thoroughly practical manner in a separate chapter.

One hundred and seventy pages at the close of the volume are devoted to organic chemistry. The authors, apparently, have not given so much attention to this portion of their work as to the other divisions, and the two chapters devoted to animal chemistry might as well have been omitted. Still much new and interesting matter will be found here as well as elsewhere, and all the subjects are treated in a plain and practical manner. The chapters on coloring matters, proximate analysis, fermentation and metamorphosis, and the alkaloids, will be found especially entertaining and instructive. We give below one or two extracts as specimens of style.

"Although plants appear to have generally a power of rejecting noxious ingredients, yet in certain cases, substances of a poisonous nature are taken from the soil by the roots, and are distributed through their tissues. The metals thus absorbed, appear to be deposited there, without injuring the growth or vitality of the plant. We have found by direct experiment that the seeds of mustard and cress, grown on a soil containing the disintegrated slag of old lead-works, took up a sufficient quantity of lead to allow its presence to be readily determined in the grown plants. We also found lead in the ashes of many plants and shrubs, and of the grass growing on lead-slag, in the valleys of the Mendip hills. Care was taken to remove any particles of the soil adhering to the plants. Dr. Cameron states that he invariably found lead in the plants grown near lead-smelting works at Ballycorus, county of Dublin (*Chemical News*, June, 1862, p. 315). Dr. Wilson has made a similar observation; and further, that herbage thus impregnated with lead, may be a cause of lead-poisoning in cattle (*Edinburgh Monthly Medical Journal*, 1852, vol. xiv., p. 386). The question has been raised whether plants can thus imbibe arsenic from the soil; and this is of some importance, inasmuch as arsenical sulphuric acid is largely employed in the manufacture of certain manures. The only recorded instances of the absorption of this mineral, are in some observations made by Dr. Davy and Mr. Horsley. They found that turnips and other vegetables grown on soils on which arsenicated manures had been placed, acquired an impregnation of arsenic (*Philosophical Magazine*, August, 1859, p. 108). Some of the lower kinds of plants (confervæ) readily grow in certain metallic solutions, which are poisonous to animals. A solution of tartar emetic exposed to air becomes speedily covered with confervoid growths of a peculiar kind. Mould-plants are observed to flourish in solutions of tartaric, citric, gallic, and tannic acids, and their compounds, but not in a solution of oxalic acid."

"CONIA. *Conicina* ($C_{16}H_{15}N$). It appears from the experiments which have been made upon hemlock, that its active principle resides in a volatile and uncrystallizable alkaloid; its properties have been investigated by Geiger, and by Dr. Christison (*Edin. Phil. Trans.*, 1836, p. 383). When the seeds or leaves of hemlock are distilled with water, the fluid which passes over has the odor of the plant, but is not poisonous; but when caustic lime or potassa is previously added to the green seeds or leaves, and these are distilled with water at as low a temperature as possible, the liquid which then passes over is both alkaline and poisonous. When 10 or 12 pounds of the seeds are worked at once, an oily matter comes over at first, which is nearly pure conia, but the greater part of the alkaloid is dissolved in the distilled water; if this be redistilled, it loses a little of its strength; but if previously neutralized by an acid, such as the sulphuric, the poisonous principle becomes fixed, and water alone distils over. The residue consists of sulphate of conia, sulphate of ammonia, and resin, the latter being produced by the decomposition of part of the conia. To obtain the conia, the above residue is digested in a mixture of 2 parts of alcohol and 1 of ether, which leaves the sulphate of ammonia; and then the alcohol and ether being carefully distilled off, the remaining sulphate of conia is heated gently with a little water and caustic potassa, when there is obtained in the receiver a watery solution of conia in the lower part, and floating on this, a layer of nearly pure hydrate of conia, containing a trace of ammonia; the water may be extracted by chloride of calcium, and the ammonia by exposure *in vacuo*.

"Conia thus obtained has the appearance of a colorless volatile oil, lighter than water, of a powerful diffusible odor, somewhat like that of hemlock, and when diluted resembling the smell of mice. It is intensely acrid to the taste. It has a strong alkaline action on reddened litmus and on turmeric. It is readily soluble in diluted acids, which it neutralizes, but its salts have not been crystallized. It is sparingly soluble in water, and combines with about a fourth of its weight of water to form a hydrate.

"Conia is a deadly poison to all animals: it first palsies the voluntary muscles, then the respiratory muscles and the diaphragm, thus producing death by asphyxia. The heart continues to act after other signs of life are extinct. Few poisons equal it in subtlety or swiftness; a drop put into the eye of a rabbit, killed it in nine minutes; three drops, in the same way, killed a strong cat in a minute and a half. Two grains of conia, neutralized with hydrochloric acid, and injected into the femoral vein of a young dog, produced almost instant death; in two seconds, or three at farthest, and without the slightest warning struggle, respiration had ceased, and with it all external signs of life. If conia be present in an extract or other preparation, it may be detected by triturating either the solid or liquid with a solution of potassa, upon which the odor of mice will be strikingly perceptible."

There are many points connected with various subjects throughout the book we should like to have more particularly alluded to, but we have felt assured that we could not more satisfactorily excite a proper interest in it than by quoting from its pages. We took it up thinking we would run over its contents in a few days, but found it so fascinating from its very simplicity, that we were obliged to *read* it through. We then began to mark such portions as seemed particularly new or interesting, but found that we had occasion to use the pencil on nearly every page, and that all the observations we had noticed in recent scientific papers and journals were here collected and arranged in their proper connection. To show how little the authors have omitted in their investigations, it will be seen, on referring to the index, which is one of the best we have ever seen, that under the generic word *acid* 258 specific names are given. It is not merely as the best text-book for the student which has yet appeared, that we recommend this work, but every physician who desires to inform himself in a few minutes' reading concerning the latest advances in chemical science, should possess himself of it. In conclusion, we would express our obligation to the American publishers for the correct and satisfactory manner in which they have performed their duty.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MAY 21, 1863.

CURE OF BRIGHT'S DISEASE BY A MILK DIET.—A writer in the *Bulletin de Therapeutique* for March, over the signature of F., in an article on this subject, contends that the disorganization of the kidneys known by this name is a secondary affection, dependent upon the albuminuria and caused by it. The primitive disease, he contends, is in the blood itself, and consists in a modification of the qualities of the albumen of the serum, at present not understood, by which it passes through the pores of the vessels. Some plausibility would seem to be given to this theory by the known efficacy of astringents, such as the salts of iron, tannin, &c., in many cases. The writer argues that if the condition of the blood can be changed the disease of the kidneys will be cured. To effect this he strongly recommends a milk diet. From the article, which is too long for us to give entire, we translate the following extract:—

We know that the use of milk as an exclusive diet is a very old remedy for dropsy, whatever may be its cause. Horstius, Hilden, Bontius, Mauriceau, &c., have successively vaunted the efficacy of this treatment, which, like so many other good things in popular use, was neglected until 1831, when M. Chrestien, of Montpellier, brought this remedy to honored notice, and proved that it would be often successful when all other means failed. M. Serres, d'Alais, Claudot, Ossieur, Dieudonné, &c., have since arrived at conclusions entirely confirmatory of those reported by Chrestien, and the *Bulletin de Therapeutique* has not failed to report with all fidelity all the facts which have been brought forward in favor of this remedy. The articles referred to regarded ascites or anasarca only in a general manner, and as a condition, independently of the cause which produced it; and although we must admit that in these results the dropsy of albuminuria may claim a certain number of cases, it had never been studied in a special manner with reference to a milk diet, up to the time of the very remarkable article of M. Guignier, Member of the Faculty of Montpellier, published in the *Bul. de Thérapeutique*, vol. liii., p. 337, and that published by M. Artigues in the *Jour. de Méd. et Chirurgie Militaire*. M. Guignier applied himself with commendable assiduity to the specification of the cases in which the method of Chrestien was indicated or the reverse. He believed it useful when there exists a condition of plethora, hurtful, on the contrary, when the dropsies are of a passive character, as the patients are too debilitated for it. It would be difficult for us to judge of the value of these distinctions and the possibility of defining them in the greater number of cases; and we can very readily believe that if the dropsies of plethora are best adapted to a milk diet, it is only because they are attacked at an earlier stage and that the constitution of the patient offers then more resources. M. Guignier furthermore does not give the first place to the method of Chrestien, but to that of M. Serres, d'Alais, based as we know on the combination of these three methods: 1st, the diminution of the amount of fluid drank; 2d, a milk diet; 3d, the use of raw onions. He lays down his treatment as follows: to choose the milk with special care as regards its freshness and quality, to change it for a supply from another source when the first fails to agree with the patient; to allow it to be taken *ad libitum* (this practice differs from that of M. Serres); to combine chalk or magnesia with it when it excites acidity; to give up this treatment at the end of twenty days when it fails to produce a marked improvement. M. Guignier, without attaching much importance to the use of raw onions, nevertheless thinks that their diuretic property is useful, and that when the stomach tolerates them they should make a part of this milk regimen.

The facts offered by M. Guignier were of much weight in favor of a milk diet, and while accepting them with some reserve, in view of the possibility when once the dropsy is absorbed of seeing the albuminuria which produced it still remain, yet the impression could not be resisted that milk affords a means of treatment of the greatest value in albuminuria. The observations published by M. Artigues, physician-in-chief of the army, furnish evidence even more decisive in favor of this regimen. He cites, in fact, two cases of complete recovery, without any return of symptoms for three years. Mr. Serres's method was that followed by M. Artigues without any variation;

it is that also which ought, in our opinion, to be followed in the treatment of Bright's disease ; it combines, in effect, the advantages of a dry and a milk diet.

Shall we not be able, by this purely dietetic treatment, to cure radically these formidable affections ? We do not doubt it, if the treatment is employed in good season, when the effusion is recent and the albuminuria has not existed long enough to have produced in the kidneys the organic lesions which are evidently beyond our resources. But even in this case, where our art is reduced to a deplorable helplessness, the following a strict regimen, of a dry and vegetable diet, but above all a milk diet, will give more favorable results than any medication known as yet. We have, therefore, felt it our duty to call attention to these means, which, besides, are recommended by their perfect harmlessness.

The following gentlemen have been appointed surgeons to assist in the execution of the U. S. Conscript Act in Massachusetts :—1st District, Dr. Foster Hooper ; 2d District, Dr. R. B. Hubbard ; 3d District, Dr. Joseph H. Streeter ; 4th District, Dr. Henry I. Bowditch ; 5th District, Dr. Daniel Perley ; 6th District, Dr. John L. Sullivan ; 7th District, Dr. D. S. Fogg ; 8th District, Dr. O. Martin ; 9th District, Dr. E. C. Richardson ; 10th District, Dr. Samuel Duncan.

During the year 1862 there were 786 births in Roxbury, Ms.—425 males and 361 females. Of 608 deaths, 58 were from consumption. There was but one death from smallpox.

From the mortality statistics of the General Hospitals at the military post of Gallatin, Tenn., from December 1, 1862, to March 31, 1863, by Wm. A. Brown, in charge of U. S. Hospital No. 5, published in the *Ohio Medical and Surgical Journal*, we learn that during that time there were taken sick, 2,293 ; returned to duty, 1,140 ; discharged, 388 ; died, 501.

The 18th annual meeting of the Ohio State Medical Society will be held at White Sulphur Springs on Tuesday, June 16th next.

The surgeons of all the regiments composing Gen. Granger's Army Corps (near Franklin, Tenn.) have formed themselves into a regular medical association, and their first meeting was held April 25th.

Drs. J. B. Hall and J. W. Mock have been appointed Assistant Physicians to the Longview (Hamilton Co., Ohio) Lunatic Asylum.

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, May 16th, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - - -	36	35	71
Ave. mortality of corresponding weeks for ten years, 1853—1863,	34.1	34.3	68.4
Average corrected to increased population - - - -	00	00	75.39
Death of persons above 90 - - - - - - -	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
18	1	2	7	0	0	0	2

Communications Received—Proceedings of the Annual Meeting of the Middlesex East District Medical Society.

Books Received.—The Diseases of Women and Children. By Gunning S. Bedford, A..M., M.D. New York : W. Wood & Co.

Journals Received.—Ohio Medical and Surgical Journal, May, 1863.—American Medical Times, vol. vi., No. 20.—Medical and Surgical Reporter, vol. x., No. 2.

Deaths in Boston for the week ending Saturday noon, May 16th, 71. Males, 36—Females, 35.—Abscess (lumbar), 1—accident, 2—apoplexy, 1—diseaase of the bowels, 1—congestion of the brain, 2—disease of the brain, 1—bronchitis, 2—cancer, 3—consumption, 18—croup, 1—cyanosis, 1—debility, 1—diarrhœa, 1—diphtheria, 2—dropsy, 1—dropsy of the brain, 3—scarlet fever, 2—gastritis, 1—disease of the heart, 2—infantile disease, 2—jaundice, 1—disease of the kidneys, 2—disease of the liver, 1—œdema of the lungs, 1—inflammation of the lungs, 7—marasmus, 3—necrosis, 1—old age, 1—paralysis, 1—peritonitis, 1—premature birth, 1—scrofula, 1—unknown, 2.

Under 5 years of age, 18—between 5 and 20 years, 6—between 20 and 40 years, 18—between 40 and 60 years, 25—above 60 years, 4. Born in the United States, 37—Ireland, 30—other places, 6.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXVIII. THURSDAY, MAY 28, 1863. No. 17.

RUPTURE OF THE UTERUS.

[Read before the Boston Society for Medical Improvement, and communicated for the Boston Medical and Surgical Journal.]

BY W. C. B. FIFIELD.

WHILE visiting a patient at South Braintree, on Thursday, April 23d, at noon, I was asked to visit a Mrs. B., then in labor. On arriving at the house, the midwife told me that she had been called at 3 o'clock, P.M., the day before, i. e., Wednesday. The patient (the mother of several children, with easy labors) had had ordinary pains until midnight, when the waters broke. The child advanced steadily till two o'clock, the head then seeming about to emerge from the external opening. At this time the patient commenced vomiting with great violence, and at three o'clock the child could no longer be felt by digital examination. No violent pain had been complained of, but flowing had been observed. The patient supposed that her menses had returned. No motion of the child had been felt since the commencement of the vomiting. Entering the sick room, I found the patient quite sensible, with a very fair pulse, complaining of pain and soreness in the bowels, and occasionally vomiting with great force. Much thirst. None of the ordinary signs of collapse, such as cold sweating skin, feeble pulse, &c., were observed. On the contrary, the woman could rise and sit on a chair or vessel. Making a vaginal examination, I found the os uteri closed, and I could reach no part of the child. On examining the abdomen, I found it very large, but neither from its form or from any unusual distinctness of head or limbs could it have been predicted that the child was not "in utero." From the facts of the retreat of the child, the peculiar vomiting, the complete cessation of pains, and the occurrence of hæmorrhage, I announced to the friends that the uterus was ruptured, that the child had escaped into the cavity of the abdomen, and that the issue of the case would probably be fatal. I advised immediate delivery as offering a chance for life. Having no instruments with me, I drove to my friend's, Dr. Wood, of East Randolph, and not only obtained instruments, but also the assistance and advice of a most experienced and skilful obstetrician.

Returning to my patient, a delay occurred from the visit of a clergyman and the absence of the husband, so that operative proceedings did not begin till after four o'clock. Thus twenty-five hours had elapsed from the commencement of labor, and thirteen hours since the retreat of the child. Owing to objections of a sister, ether was not at first administered, but on attempting to pass my hand, I could not overcome the resistance of the os uteri. Ether was now inhaled, and the hand passed readily into the uterus, finding no fœtus. On the right side, I found a large rent, not extending through the cervix. Passing the hand through the rent, I found the child lying among the intestines. Grasping the feet, I brought them down; then bringing the arms down, the head occupied the pelvis, the occiput to the right groin, the forehead to the left sacro-iliac synchondrosis, and from this position it did not incline to move. A blunt hook was passed into the mouth, and traction made on the lower jaw, which soon fractured. The crotchet was now fixed in the right and left orbits successively. These holds soon gave way. The head being perforated behind the left ear, the crotchet was passed and probably fixed on some part of the orbital plate, but without effect. Dr. Wood now relieved me and again perforated the head farther back, but could not succeed in effecting delivery. I now resumed the crotchet, and as I had been foiled in attempting to make the forehead descend, by flexing it towards the breast, I determined to act in a precisely contrary manner, and make the occiput descend. Fixing the crotchet on one of the internal occipital ridges, a very slight force effected the delivery. The placenta being removed, the hand was once more passed to assure myself that no intestines had been caught in the rent. The patient being put to bed, the uterus was felt well contracted. A teaspoonful of laudanum was given immediately, and spoonsful of beef-tea ordered to be given through the night. At the visit next morning, I found that she had died at 5 o'clock, A.M., vomiting and thirst continuing to the last.

The only practical reflections I am able to make in this case, are in regard to the descent of the head in version. Writers on midwifery do not seem to have made accurate investigations on this point. So, although we have explanations of the manner in which the head passes along the cavity of the sacrum, and how it emerges beneath the pubis, the way in which it passes the brim of the pelvis has not been much inquired into. For the management of the head in such cases, directions are given by Ramsbotham, Lee and Cazeaux, that the fingers may be passed up on the face, or a finger get into the mouth, and the head flexed forward. In the case just cited, we have seen that with a pelvis of unusual capacity, and a fœtal head not disproportioned to the cavity, powerful traction, when applied with a view to cause the head to be flexed forward, was insufficient to advance it in the slightest degree. But a slight force applied to cause the descent of the occiput was immediately successful. Having had but a small experience in obstetrics, I will put the idea in the form of a question. As in natural labor the head clears the brim of the pelvis flexed forward on the breast, the occiput passing first, the superincumbent weight of the child tending to keep the head of the child flexed forward—*why*, in breach cases and cases of version, may not the head clear the brim, the head flexed backwards and the occiput passing first, the weight of the child aiding in this, since the line of traction is posterior to the axis of the skull?

I will close by mentioning three cases of recovery after rupture of the uterus—one occurring in the practice of Dr. Benj. Cushing, of Dorchester, the other two given by Lee, occurring to Blundell and Desormeaux. In Dr. Cushing's case, the hand was passed to the umbilicus and felt from the outside by another party. Blundell says he felt the intestines, the edge of the liver, and perceived the beat of the large arteries. Desormeaux says, that a stout young woman had the uterus ruptured after thirty hours labor, and nearly four feet of intestines protruded into the vagina and sloughed off the sixteenth day after the accident. For two years the patient voided all the fæces through the breach of the uterus; afterwards they took the natural course. Eighteen months after, the woman conceived, and was safely delivered of a small, feeble child.

HOSPITAL NOTES AND MEMORANDA.

By J. Baxter Upham, M.D., Surgeon in charge of Stanly Gen. Hospital.

Further Observations in regard to the Cerebro-spinal Affection occurring in and around Newbern, N. C.—(Concluded from p. 317.)

The *anatomical lesions*, in the cases examined, were confined principally to the brain and spinal cord. Where death took place early—within two or three days—there was commonly opalescence of the upper surface of the cerebrum, seemingly in the subarachnoid fluid; an increased vascularity of the membranes of the brain and spinal cord, affecting the pia mater especially; a large increase of serum in the subarachnoid space and ventricles, clear or turbid, and mixed with flocculi of lymph, with, as often as otherwise, even in cases of the briefest duration, an abundant exudation of thick, yellowish, apparently semi-organized lymph on the base of the brain and medulla oblongata. Conjoined with these phenomena, there was in such cases more or less passive congestion of the lungs; increase of the pericardial fluid, and occasional engorgement and enlargement of the liver or spleen.

In cases where the disease had lasted for a longer period—from seven or eight days to three or four weeks or more—the deposits on the brain were usually more marked, predominating at its base, around the pons Varolii and in the sulci of the cerebrum and cerebellum, covering the surface of the oblongata, and extending down upon the spinal cord, sheathing it, in some cases, throughout its entire extent. This exudation was either pus-like, or concrete and semi-organized, abundant, from two to three or four lines in thickness not unfrequently. It appeared, also, in the ventricles—in the posterior cornua of the lateral ventricles in its concrete form particularly, or else tinging and thickening, with an opaque greenish pus, the serous fluid of the whole cavity. The membranes of the brain, the pia mater especially, showed, not unfrequently, evidences of congestion. The viscera of the thorax and abdomen, with the exception of some passive engorgement of the lungs in their depending portions, the occasional presence of lymph in the pericardium and ventricles of the heart, and sometimes enlargement of the liver and spleen, presented nothing unusual. The mucous membrane of the stomach and intestines was generally normal—the patches of Peyer unaltered.

Dr. Jewett has given the pathological appearances in two cases that came under his observation, illustrating the *extremes* of duration; the one case was completed in twenty-four hours, the other in twenty-three days. In regard to the first case he remarks: "On removing the calvarium, the membranes were found to be adherent, so much so as to require to be torn from the substance of the brain in some portions; the membranes were in some places also adherent to each other. The subarachnoid space was filled with a straw-colored serum, from three to four ounces, by estimation, in quantity; there was more fluid in the right than in the left ventricle. Whole surface of the brain highly congested, with small patches of lymph at base of cerebellum. On exposing the spinal canal, the cerebrospinal fluid appeared in greatly increased quantity, and of a yellowish and milky hue; meninges much congested, and the cord itself softened. In the latter case," he says, "the dura mater was strongly adherent over the longitudinal sinus; the lateral ventricles were filled with about three ounces of straw-colored fluid; vessels of the choroid plexus strongly injected; the fourth ventricle filled with serum and pus. A large deposit of lymph, three lines in thickness, covered the pons Varolii and inferior surface of the medulla oblongata. The meninges of the cord much congested; about half an ounce of sero-purulent matter in the spinal canal; the spinal cord enveloped in a layer of lymph from two to three lines in thickness in some parts, the lymph extending down, and sheathing to their very extremities the cauda equina and sacral nerves."

Of the seven fatal cases reported by Dr. Cowgill, that in which death took place earliest (within thirty-six hours) exhibited a cloudiness of the entire surface of the cerebrum and medulla oblongata, increased vascularity of the membranes, with effused serum into the ventricles, injection of the pia mater of the spinal canal, with infusion of turbid serum in its lower part, and evidences of inflammatory action along the entire cord. That of longest duration (thirty-four days) revealed injection of the pia mater, with some exudation of yellowish lymph along the sulci of the upper surface, and a thicker deposit, of apparently plastic purulent matter, on the inferior surface and over the pons Varolii and oblongata especially, and two ounces of serum in the lateral ventricles. Of his remaining five cases, intermediate in duration, there was increased vascularity of the membranes, the pia mater especially, in all; a thin deposit of lymph on the upper surface of the brain in two, and a more abundant, consistent exudation of lymph-like matter, predominant at the base of the cerebrum and cerebellum and medulla oblongata, in four; prolonged, either in the form of lymph or sero-purulent effusion, into the spinal canal, in three; with, in all, distension of the ventricles with serum or sero-purulent matter.

Within the sphere of my own observation, of five cases that terminated fatally on or before the third day, the investing membranes of the brain were noticed to be congested in two instances, in the others not; in three there was an extensive deposit of lymph on the base of the brain and cerebellum particularly; in one, slight cloudiness on the superior surface of the cerebrum only, with some opacity of the arachnoid; and in one, no abnormal deposits. In the two cases of longest duration (thirty-four and thirty-six days respectively), there was, in the former, cloudiness and slight deposit of lymph between the convolutions on the superior surface of the cerebral hemispheres and a firm layer of coagulable lymph, one sixth of an inch in thickness, on the inferior aspect of the cerebellum and oblongata; in the latter, a little increased vascularity of the pia mater, a thin, milky fluid beneath some portions of the arachnoid on the brain superiorly; and at its base a mass of tenacious, yellowish lymph, three eighths of an inch in depth, extending down upon the spinal cord; the ventricles were, in both cases, distended with sero-purulent matter. And of the six intermediate cases, there was more or less congestion of the investing membranes in three; the clouded appearance of the arachnoid only, in one, and copious exudation on the base of brain and medulla oblongata in five.

In regard to *treatment*, when we consider the mortality, as shown in the preceding record, but little that is satisfactory can be said. In the onset of the epidemic, it was naturally taken to be of malarial origin, and the usual means of combating such an affection were assiduously employed—quinine, in some instances to the extent of sixty and even eighty grains, being given within ten or twelve hours from the first attack, but without effect; conjoined with this, stimulants and purgatives of calomel were freely used. Antiphlogistic measures were also tried—cupping, wet and dry, to the back of the head and nuchæ; saline purgatives, epispastics, frictions along the spine, blisters to inside of thighs, calves and ankles, with enemata of turpentine and brandy. Where there was marked cerebral excitement, venesection was freely employed—but its powerlessness to avert, or even mitigate the symptoms, is seen in Dr. Cowgill's account of a case which occurred at Academy Hospital, in which the remedy was faithfully tried. The patient was a strong, robust young man—attacked suddenly, and with great violence—with urgent cerebral symptoms, great restlessness and jactitation, perfect unconsciousness and with a full pulse. He was bled to the amount of twenty-four ounces; his pulse became stronger under the operation—no symptoms of faintness. He was quiet for twenty minutes, when the jactitation became as violent as before. At evening, there was violent muscular action, pulse 86, strong and full; the bandages were loosened, and sixteen ounces more of blood allowed to flow—the patient, in the meantime, being held upright in bed. There was no evidence of syncope, and no lessening of muscular action. The excitement continued the whole night, and the patient died the next day.

Calomel in combination with ipecac, in doses of two grains of the former and half a grain of the latter, given every two hours—in conjunction with frictions or sinapisms along the course of the spine, as reported by Dr. Cowgill, seemed, in several instances, to have a good effect. Dr. Haddock suggested the use of ergot, in accordance with the recommendations of Dr. Brown Séquard, in certain affections of the spinal cord unaccompanied with active inflammation. It was given in the form of the fluid extract in doses of from ten to fifteen minims, repeated every four hours. Several of the cases thus treated by Dr. Haddock recovered.* Oftentimes a beneficial effect attended the exhibition of camphor-water in combination with the carbonate of ammonia. Dover's powder and the solution of sulphate of morphia were given to induce sleep at night.

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* The following is an interesting case of recovery, under the treatment by ergot, in the hands of Dr. Haddock :—

DeWitt C. White, Co. I, 8th Reg't M.V.M., aged about 19, came to Hospital Tuesday, March 10th. Was taken suddenly the night before with convulsions, and had remained unconscious for the most part since, rousing up now and then, moaning, and complaining of the back of his head and neck. Got, before he came in, a purge of calomel and jalap, and had cups, wet and dry, applied to the back of his neck.

Found him, on admission, dull and stupid, with purple lips, and venous system in general congested ; tongue white, moist ; delirious ; breathing stertorous ; pulse 96, full ; an eruption like purpura covering abdomen and legs. He got, at once, an ounce of whiskey, with ten grains of quinine, turpentine mixture and ammonia, alternately every fourth hour ; mustard pediluvium and cold to back of neck and head.

11th.—The bowels not having moved, he got half an ounce of salts. Pulse 116 ; answers questions, but talks incoherently ; sighs, moans, complains of his head and neck ; eruption full and distinct—spots large, and in form of measles. In evening, pulse 84; bowels moved during the night.

12th.—Pulse 84 ; tongue thickly coated, white ; cheeks flushed ; delirium constant ; answers questions correctly, but at once relapses into stupor ; skin dusky yellow ; eyes very susceptible to light. Continue treatment. Evening.—Pulse 80 ; delirious ; skin moist ; no pain ; head thrown back ; no headache ; talks to imaginary persons and catches at imaginary objects. Ordered mustard pediluvium.

13th.—Pulse 84 ; restless ; delirious ; three involuntary discharges ; urine free, involuntary, brown, ammoniacal. Continue treatment.

14th.—Restless until 12 at night (of the 13th) ; some involuntary discharges ; pulse 72 ; skin moist ; unconscious for the most part.

15th.—Pulse 100 ; strabismus ; tongue dry, brown, cracked ; discharges involuntary ; delirium constant. Continue treatment.

16th.—Paralysis of right arm and leg ; tongue same ; pulse 92, soft ; headache ; urine less free. Got fifteen drops of fluid extract of ergot. (See Dr. B. Séquard on Epilepsy.) Omit all else.

17th.—Very much the same. Continue treatment. Mustard to spine.

18th.—Rested well. No dejection ; pulse 88 ; no pain ; urine natural ; mind clearer. Increase ergot to twenty minims.

A natural and interesting inquiry here arises as to the *nature* of the affection above described. Was it an inflammation, in the ordinary acceptation of the term, of the brain and spinal cord or their membranes—or was it the manifestation of some obscure but malignant malarial influence, or form of congestive or pernicious fever, so called—or in its essence a typhus fever, of a peculiar and fatal type, such as has heretofore been described in the history of military campaigns, which lurks in the track of armies, and breaks out suddenly and in a mysterious manner in camps and garrisoned towns? From the limited number of cases as yet adduced, no definite conclusions on this point can perhaps be arrived at; but, by the process of exclusion, we may be able to approximate towards the truth. That it was not, in its essential essence and primarily, an inflammation of the membranes of the brain and spinal cord, it seems fair to conclude from the futility of all the known means of combating such disease in producing any adequate result. Venesection, both local and general, did not control the violence of the diseased action. Blisters were not well borne. Calomel and saline cathartics were tried in large doses without effect. And its outward demonstrations, if carefully considered, would seem rather that of some subtle agency that had suddenly and overwhelmingly oppressed the vital energies, than the painful and excited expressions of active inflammation.

The arguments against its malarial nature and origin, are, in my own mind, stronger still. It lacks many of the important symptoms and characteristics of the "congestive fevers" of tropical climates, as described in the books. It is not intermittent, nor is it uniformly nor commonly remittent. It occurs at a season of the year when miasmatic diseases do not prevail, and among the new troops by preference—who have not been previously exposed to

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19th.—Tongue red at centre, white at edges. Continue treatment. Increase ergot to twenty-five minims.

20th.—Pulse 84. Continue treatment. Increase ergot to thirty minims. Purgative enema.

21st.—Seems better; mind clearer. Extract of ergot, thirty-five minims. Bowels moved; slight nausea.

22d.—Rested well. Asleep. Tongue cleaning; pulse 80; pain in back of head; mind clear; no paralysis; no strabismus. Says he "feels sick and *tired*." Continue treatment.

23d.—Remains very much the same. Nausea. Lessen ergot to thirty minims. Says he feels better.

24th.—Did not rest. Headache; mind clear; some appetite; one dejection; "legs are tired"; pulse natural; rheumatic pains; "neck lame." Cold applications to neck.

25th.—Synovitis (left knee); no redness or pain; swelling large; fluctuation distinct.

26th.—Cold water only to knee. Fine, distinct eruption over body and arms; urine large in quantity; tongue red and cleaning. Feels that he is recovering.

27th.—Vertigo. Ergot, twenty minims.

28th.—Complains of his shoulders aching severely; some nausea; bowels moved; hungry.

29th.—Pain the same. Tincture of iodine over the spine. Continue treatment.

From this time the patient regularly and rapidly improved. The ergot was suspended on the 6th of April, after which he required but little treatment, except for constipation or rheumatic pains. April 29th, was sent to Beaufort, *convalescent*.

malarial influences—and does not succumb to, nor appear to be favorably influenced by the administration of quinine, however early this treatment may be commenced and vigorously prosecuted. And the anatomical lesions which, other things being equal, might accord with the supposition of its malarial origin in the cases examined, are the rare exception, not the rule.

The disease seemed to me rather to partake of the nature of typhus, in a severe and malignant form, identical in its essential elements with the typhus fever of Great Britain, which, under the names of maculated typhus, ship fever, camp or jail fever, has many times been observed in this country—having, in this instance, a special direction to the meninges of the brain and spinal cord, as, in other epidemics, the weight of the disease has fallen at one time upon the brain, at another upon the lungs or other important viscera of the thorax or abdomen—springing up epidemically or otherwise, wherever there is long-continued crowding and exclusion of light and air, coupled with deprivation, hardships and exposure. Thus, in the affection under consideration, the circumstances of its origin are similar in kind, if not in degree, to those in which the typhous group of diseases most frequently originate.* And very many of its phenomena and phases are like to those which are witnessed in typhus epidemics. The suddenness of its accession, the dusky hue of the face, the suffused and injected eyes, the petechial eruption and purpural spots, the defective innervation of the respiratory and circulatory system, as shown in the labored, irregular breathing and the often tumultuous and intermittent action of the heart, the sluggishness, but otherwise general freedom from functional derangements of the thoracic and abdominal viscera, and, after death, the passive engorgements, and dark, fluid, sizy character of the blood, all point to the typhus element of the disease, and would seem to indicate a line of therapeutical management similar to that which experience has found most effectual in the treatment of that malady.

ON THE USE OF GLYCERINE IN SURGERY AND MEDICINE.

By E. J. Tilt, M.D., M.R.C.P., &c.

Glycerine is not sufficiently valued in this country as a therapeutical agent; whereas the high estimation in which it is held on the Continent may be inferred from the fact, that from 1851 to 1861 the annual consumption of glycerine in the Paris hospitals rose from

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* How far the nature of the material of which the barracks were constructed contributed to the existence of the epidemic, it is difficult to say. This condition of things, by aggravating the ordinary exciting causes of disease, may naturally be supposed to have aggravated its violence and intensity, if it did not actually favor and hasten its appearance. Certain it is, that in the case of the four regiments principally affected, a change of locality and circumstances was followed by the immediate cessation of new cases.

300 lbs. to 3000 lbs. I propose to point out the principal advantages of glycerine from personal experience, and from that of an eminent Paris surgeon, M. Demarquay, who has been chiefly instrumental in introducing this agent, and has just published the results of his experience in an interesting little work. In the process of making lead-plaster, glycerine is produced, but, as it contains lead, it has an irritating action on abraded surfaces. The only glycerine, therefore, fit for medical and surgical uses is Price's, which is made by subjecting palm oil to steam raised to a temperature of 300° centigrade, and its specific gravity should be 1·26.

Glycerine is too well known to require description. Although derived from fatty substances, it will not combine with them, but mixes with water in any proportion, and has the power of dissolving all our active therapeutical agents about as readily as weak alcohol.

SURGICAL USES OF GLYCERINE.

Pure Glycerine.—In household surgery, glycerine is known as the best remedy for chapped hands and slight irritation of the face and lips. I have found it invaluable when freely used in nasal, pudendal, and anal irritation. It is applied in a large number of skin diseases in France; and Maisonneuve, Denonvilliers and Demarquay use it to dress ulcers and wounds, instead of cerate. It appears to have antiseptic properties, inasmuch as it speedily gives a healthy appearance to foul, unhealthy, and even pultaceous-looking wounds. This is admitted by Baron Larrey, whose report is in other respects unfavorable to its use in surgery. Indeed, this antiseptic property might be inferred from its preserving from decomposition meat and microscopic objects that are kept in it, or have been steeped in it.

Liniments.—Glycerine does not become rancid, like oil. It is cleaner, can be easily washed off, and does not stain the body linen like oil. Though glycerine does not dissolve fat, it is said to dissolve the sebaceous product of the skin, and thereby to facilitate the absorption of the various ingredients which it may hold in solution. For these reasons, glycerine is far preferable to oil as a basis for liniments.

Lotions.—Since Mr. Startin has praised glycerine as a useful ingredient of lotions for the skin, this has been fully admitted. Its stability, cleanliness, innocuousness, and antiseptic properties make it a valuable ingredient for all the variety of lotions which are applied to the inflamed or to the unhealthy mucous membranes of the mouth, eyes, nose, ears, rectum and vagina.

Ointments.—When starch is boiled in glycerine the membranes burst and uniformly thicken the liquid. If eighty grains of starch are boiled in one fluid ounce of glycerine, a moderately stiff and tenacious plasma or ointment is the result. It is stable, inodorous, clean, and is capable of holding in solution or suspension all the agents usually incorporated with lard. Glycerine ointment does not become rancid like other fatty substances, does not soil the body linen, and can be instantaneously removed by means of a damp towel.

Mr. Bullock, of Hanover street, has made experiments of combining glycerine with several kinds of starch, and I lately exhibited the samples at a meeting of the Obstetrical Society. Every kind of starch makes a very serviceable product, but maize and the ordinary starch seem to give the stiffest and most satisfactory result.

It has been objected to glycerine ointment that it is too absorbent of moisture to be useful; but this is not true. It absorbs moisture only to a limited extent—suggesting to the pharmaceutist the advisability of not making a large quantity at a time, and of keeping it closely covered up.

Glycerine ointment has been used in France under the name of *glycerat d'amidon*. It has been extensively prescribed by my friend Mr. Henry Lee, and by Dr. Symonds and Dr. W. Budd, of Clifton. Mr. Schacht, of the same town, wrote a paper on the subject, which will be found in the *Pharmaceutical Journal* for 1858. For the pelvic and spinal pains attendant on uterine inflammation, I frequently prescribe the following ointments:—Sulphate of atropia, two grains; glycerine, half a drachm; oil of neroli, four drops; glycerine ointment, one ounce. A portion of this ointment, about the size of a small walnut, is to be well rubbed in, night and morning. Acetate of morphia, ten grains; otto of roses, one drop; glycerine, half a drachm; glycerine ointment, one ounce.

Plasters.—It occurred to me that by boiling a larger quantity of starch in the same quantity of glycerine the ointment might become stiff enough for all the purposes of plasters. Mr. Bullock therefore boiled 100 to 150 grains of starch in an ounce of glycerine, and obtained a very firm and tenacious compound, to which I have directed attention, in my "Handbook of Uterine Therapeutics," as well calculated to make ready-made plasters, not open to the objections raised against those in common use, which either do not stick at all, or stick so firmly that their removal is difficult. Some of them also smell so disagreeable as to interfere with a patient's sleep, while others cause a skin irritation which was not desired. With the glycerine plasters the patient may continue using the sponge bath or any other bath that may be advisable, as there is no difficulty in removing and replacing the application. This hard glycerine ointment is capable of holding, partly in solution partly in suspension, all the ingredients of the plasters now in use. It can be made softer by being rubbed up with a little glycerine, and I tell the patient to spread it thickly with a paper-knife on gutta-percha cloth, or on the fluffy side of leather, or on impermeable wash leather. Before reapplying the plaster it is well to spread a little more ointment, and they can be speedily cleaned with a sponge and tepid water. Thus, instead of prescribing a belladonna plaster, I order—Sulphate of atropia, four grains; otto of roses, one drop; hard glycerine ointment, one ounce. The salt is to be rubbed down with a few drops of glycerine, and incorporated with the ointment. I give veratria in the same proportion, and double the quantity of morphia. The following compound sedative plaster can be made in the same manner:—Sulphate of atropia, three grains; veratria, three grains; sulphate of morphia, eight grains; otto of roses, one drop; hard glycerine ointment, one ounce.

MEDICINAL USE OF GLYCERINE.

It is said to be useful in dysentery, and its antiseptic properties justify its trial in cases of ulceration and inflammation of the stomach and intestines. Experience has not confirmed the assertions of those who affirm that it acts on the system like cod-liver oil.—*London Lancet.*

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE MIDDLESEX EAST (MASS.) DISTRICT MEDICAL SOCIETY. BY E. CUTTER, M.D., SECRETARY.

South Reading, March 25th, 1863.

The Middlesex East District Medical Society held its annual meeting at the house of Dr. J. D. Mansfield. At 8, P.M., the members were called to order by the President. The records of the last meeting were read and accepted.

The Treasurer reported that every Fellow had paid his dues, and that there was a balance on hand of $11.15. The Chairman of the Committee on Periodicals reported that the Society had taken, the past year, the London *Lancet*, *American Journal of the Medical Sciences*, *American Medical Times* and Philadelphia *Medical and Surgical Reporter*. It was voted to continue the same at the discretion of the Committee, and that the old periodicals on hand be sold at auction at the next meeting.

The following officers were chosen for the ensuing year:—*President*, Hon. Dr. H. P. Wakefield, of Reading. *Vice President*, Dr. J. D. Mansfield, of South Reading. *Secretary*, Dr. Ephraim Cutter, of Woburn. *Censors*, Drs. E. Cutter, Chapin and Toothaker. *Councillors*, Hon. Dr. H. P. Wakefield, Drs. E. Cutter, Chapin, Mansfield. *Treasurer*, Dr. B. Cutter. *Commissioner on Trials*, Dr. B. Cutter. *Auditor*, Hon. Dr. H. P. Wakefield.

Dr. W. F. Stevens, of Stoneham, was elected a delegate to the Chicago meeting of the American Medical Association, *vice* Dr. W. Ingalls absent at the seat of war.

The President stated that at the last meeting of the Councillors of the State Society, in consequence of the representations of our Society, it was voted "that the Censors at Large are hereby instructed not to admit any person who is a resident or in practice in any District except his own."

Dr. Hodgdon, of West Cambridge, exhibited a hypertrophied heart, and also two kidneys, which had undergone a fatty degeneration of the epithelium lining their cavities.

The following report was then read :—

Report of the Committee appointed to consider the expediency of systematic united contemporaneous Inquiries into the Therapeutical Action of Medicinal Agents. By

EPHRAIM CUTTER,
ALONZO CHAPIN,
S. A. TOOTHAKER,
Committee of the M. E. D. M. Society.

Gentlemen,—The Committee, to whom this important matter has been entrusted, have duly considered it, and report that it is expedient for the Middlesex East District Medical Society to engage in the investigation of the Therapeutical Action of Medicinal Agents.

The reasons for such a decision are obvious on reflection. The mission of the physician is the treatment of disease ; either to avert, destroy, mitigate, or conduct it to a safe termination. Any other aim, excluding these, is unworthy of the profession. It is important that this idea be thoroughly understood at the outset. Some physicians seem to make pathology, diagnosis (to say nothing of pecuniary reward), the great end of medical life. And the curriculum of the schools embraces so much of the natural history of disease, with but a moiety for the department of therapeutics, that it is no wonder there is so extensive a scepticism among their graduates. It cannot be denied that therapeutics is the great field of the physician's skill and usefulness. The value of his services is estimated by the amount of good he accomplishes by their ministration. In other words, *treatment is the main thing.* A man that is sick desires to get well, and he is the best physician for him who ensures his recovery in the shortest, safest and most thorough manner. The refinements of diagnosis, the skill of anatomy, the treasures of pathology, should be subservient to treatment, and are chiefly valuable as they throw light upon it. If this be granted, we can inquire whether the field of therapeutics, although traversed by physicians of every time, of every grade and of every character, has been thoroughly or usefully explored and all its valuable secrets discovered. It would seem not. For we are met by some who aver that all medicines, as now employed, are useless, if not worse than useless ; and, more than this, we have been told that if our whole materia medica were cast into the sea it would be worse for the fishes and better for mankind.

We find others who say that disease is self-limited and should not be interfered with. It needs only watching, and it will run out of itself. All that the physician has to do, is to furnish a well-digested history of the case. Remedies are of no avail, except as amelioratrors.

We next meet among mankind a vast number of pathies and methods of treatment—each claiming to be infallible ; and still the world goes on, its inhabitants dying at about the same rate as before the advent of these new discoveries.

Again, we find a long list of substances and products in nature and art which have not been thoroughly investigated in a therapeutical manner. So that while myriads of observers have sedulously cultivated the department of therapeutics for ages, still they have appropriated but a moiety of the boundless stores. Is it, then, time for the medical profession to lie at ease, when so much remains undone, and not to endeavor to disarm scepticism and quackery by patient, legitimate investigations? If drugs are worthless, let it be known by undeniable evidence. If any interference with the course of disease is useless, let it be proved. If pathies and specifics abound, let them be tried by the rules of common sense and receive patient and judicious investigation. But it is unnecessary to go so far out of the way as this. There are less radical inquiries to be made than these. Have all the uses of the drugs now most employed been defined with precision? Has any physician ever realized the ideal descriptions of medicinal agents found in books? Do we know *all* about them? Twenty years ago, ether was an almost disused chemical agent. Well might a caviller have asked at that time, "What is ether good for? Throw it into the sea, and it will be better for mankind and worse for the fishes." Who can say so now? Even the same sceptic must now admit this drug as useful. If ether has suddenly become so valuable, what hinders some other now obscure agent from becoming also of known and acknowledged worth? What is needed, is the idea and observation. The past glorious discoveries are but an earnest of what is in store for the future. We have encouragement to persevere and pursue onward.

This leads to another thought, that the natural indifference of the great mass of medical men to such labors of inquiry and research has thrown into the hands of illiterate and lay observers some of the discoveries of medical truths. We all know how much we are indebted to dairymen for vaccination, to dentists for anæsthesia by inhalation, to a monk for antimony, and to a quack for mercury. It teaches us that no physician, however learned, can fail to gain information from persons in very humble life. It is Agassiz, I think, who says that any one can be an observer in natural science and thus advance its interests. To a certain extent, this is true in medicine. The field of therapeutics is so varied and extensive that it is impossible for one person to make observations over anything like a moiety of its surface. So that the true man of science must be content to learn of some phenomena from those who have observed them, be they physician, nurse, patient or layman. Had not Jenner learned from illiterate peasants a fact they had observed, for anything that we now know, we might have been without the priceless boon of vaccination. Some have the habit of saying that some things are absolutely impossible because contrary to their experience and knowledge. But this is wrong. Our knowledge and experience, at the best, are limited, and we are obliged to learn from one another. There is no doubt that many a humble country physician, and even many an old woman and nurse, can impart valuable hints of information to the brightest lights in the profession. Shall we, then, disdain to open to our benefit these sources of knowledge?

Again, the tide of discovery and research in therapeutics will go on, whether we will or not. Coming years will bring additions of worth. Shall we bear a part in these new revelations?

If it be granted that therapeutical inquiry be expedient, it must next be inquired whether a systematic, contemporaneous series of investigations would not also be expedient. By all means, for the broader the field and the larger the number of observations the more reliable becomes the report. There is an advantage in testing a remedy under the different circumstances that must attend a large circle of observations. Its effects are thus manifested under the varying conditions of idiosyncrasies, epidemic, endemic and meteorological influences, and all the thousand disturbing forces that act in physiological life. Time is also saved. A thousand observers could note in one year what it would take *one* observer a thousand years to investigate. It may here be objected that the mass of physicians are incompetent to observe, and that their observations, if made, would be vitiated by their ignorance. But some of the greatest discoveries have been made by those who know even less than physicians of ordinary capacities. Moreover, these commonplace men make up the bulk of the profession and do nearly all its work. However great the amount of labor done by the higher class of practitioners, it weighs but a trifle when compared with the aggregate performed by the lower. A remedy tried by them in their place is better tested than when left solely to the great professor alone in his laboratory. It is a libel upon the profession to declare such ignorance and incapacity among them.

Another advantage in systematic, contemporaneous inquiries is, that the results of such investigations would have a commanding influence. Suppose that all the medical societies in New England should, upon the reported results of all their fellows, announce that veratrum viride is a valuable curative agent, because of its being a sedative of remarkable power and certainty, and, on the other hand, that the sarracenia purpurea is not a specific for the smallpox. Would not their decision be acquiesced in as authoritative? Would not the merit and demerit of these drugs be definitely settled? Should such inquiries be pursued to the extent that the materia medica of the present day demands, it is proper to expect that this collection would be deprived of many substances, and that inestimably valuable accessions would supply their places, much to the credit of the profession and the good of mankind.

This work is admirably adapted to medical societies. It fulfils one of the prime objects of their organization—namely, the advancement of medical interests. It furnishes an opportunity for effort in which the endeavors of all can be directed to a common end, and thus, without taxing the energies of a single individual, an amount of work can be accomplished which would be impossible for isolated observers. There is also a great satisfaction in having a body of intelligent, educated physicians engaged in a work which brings so speedily its available results. It improves the *morale*, elevates the *esprit du corps*, and strengthens the organization. We speak from experience. The investigation of the veratrum viride has done as much as this for our own body. This drug now ranks as the most reliable arterial sedative known, and in some measure is this high reputation due to our own and other societies' recommendations, based upon actual therapeutical trials. We feel that the energy displayed in investigating this and other drugs has rendered our organization more active, spirited and useful. It would seem very proper for us to advance further in this direction, and do all in our power to meet the demand for the labor which at the present day is so pressing. Although we have been among the first to investigate drugs in our associated capacity, still we are behindhand in the systematic, contemporaneous, united, therapeutical investigation of medicinal agents. This has already been undertaken by the British Medical Association, and some of its most eminent members have pledged their attention to these inquiries. But as this is a work for *all*, it is to be hoped that those who are not suns in the British profession will unite their myriad lesser rays of light with the beams of the greater, and thus envelope the inquiries with their combined illumination. If we engage in similar inquiries, we may reflect back the transatlantic luminaries now rising in therapeutical science.

Plan of Operation.—It is recommended that a Standing Committee, of three persons, be annually elected by ballot, or otherwise, called the Committee on Therapeutical Inquiry; that they be entrusted with the management of the investigations in all branches and details; that they report verbally, or otherwise, at each meeting of the Society, and that they be authorized to make any judicious expenditure of money from the treasury in order to carry out their designs. A list of substances may be submitted by them to the Society as fit for trial or report. The Society may elect that article or articles which would be most consonant with its wishes. Every member is expected to make trial of the agents and report the results, whether favorable or unfavorable, so that the Committee may have the means of ascertaining its real therapeutical value.

This subject is certainly one that deserves the serious consideration of medical men, and it ought not to be undertaken by us without due reflection and resolution to carry out the operations necessary to give our labors a character worth having.

The following articles are suggested as possibly being desirable substances for therapeutical inquiry.

1. *Chlorate of potash* in acne, struma, and tuberculosis, as a powerful excitor of the appetite and increaser of nutrition. Dose, for an adult, of the saturated solution, a wineglassful thrice daily. Highly recommended by Dr. Alexander Harkin, of Belfast, Ireland, who reports a most extensive and satisfactory use of this well-known drug in his own hands.

2. *Galium aparine* ("cleavers"). *Preparation*—Thayer's fluid extract (alcoholic). In epilepsy. Dose, one fluidrachm thrice daily. Recommended by Dr. John W. Ogle, of London, Eng., as of service. In France there is a hospital established for the purpose of administering this remedy to epileptics. The writer has tried it in two cases, in one of which it afforded marked relief.

3. *Cimicifuga racemosa*. *Preparation*—Tincture of the root, four fluid ounces to one pint of diluted alcohol. Dose, one fluidrachm. Recommended in diphtheria, internally and topically, by Dr. E. O. Phinney, of Melrose, Mass.

4. *Pepsine*. *Preparation*—Powder and wine, made by Messrs. T. Morson & Son, 19 and 46 Southampton Row, London, Eng. (To be had of T. Metcalf & Co., 33 Tremont Row, Boston.) Dose 15-20 grains and one fluidrachm immediately after eating. Recommended in dyspepsia, in fœtid breath of children depending upon no obvious cause, and in deficiency of gastric secretion.

5. *Bromide of Ammonium* in atheromatous affections and obesity. Dose, five grains thrice daily.

6. *Iodide of Ammonium* as a substitute for iodide of potassium; said to have a more absorbent power, and, when applied locally, as in the case of hypertrophied tonsils, to cause interstitial absorption of the overgrowth. Authority, Dr. B. W. Richardson, 12 Hinde St.,

London W. Dose and mode of administration same as iodide of potassium.

7. *Polygonum hydropiperoides.* (Smart weed.) *Preparation*—Infusion of leaves or tincture. Dose, wineglassful thrice daily, or one fluidrachm of the tincture. In amenorrhœa, or as a diuretic.

8. *Pumpkin Seeds*, as a diuretic. *Preparation*—An emulsion made by macerating and brusing a handful of seeds in a pint of water, and allowing for a drink, or the simple eating of small quantities of the seeds at certain intervals.

9. *Trifolium pratense.* (Red clover.) *Preparation*—Infusion, an ounce to a pint of boiling water. To be drank *ad libitum* in whooping cough.

10. *Verbascum Thapsus.* (Mullein.) *Preparation*—Tincture of the leaves, two ounces to one pint of diluted alcohol. Dose, one fluidrachm. As a cerebral stimulant and anodyne; to be used instead of opium.

11. *Pyrophosphate of Iron.* Dose, from three to five grains thrice daily, in some diluent. In hypertrophy of the heart, especially when associated with albuminuria. An excellent salt is prepared by Morson (address given above).

12. *Gelseminum semperverens.* (Yellow Jasmine.) *Preparation*—Thayer's fluid extract. Said to be a most desirable drug. Used as a cerebral sedative. Employed in headaches, in fevers where there is cerebral irritation.

At the conclusion of this report, it was accepted and adopted. Drs. E. Cutter, Woburn, C. Jordan, South Reading, and R. L. Hodgdon, were appointed a Standing Committee upon Therapeutical Inquiries.*

The treatment of diphtheritis was next discussed. The President inquired of each member how he should treat it.

Dr. B. Cutter said that his remedies were the tr. ferri chloridi internally, quinine, tonics and alcoholic stimulants. Not much local treatment.

Dr. S. W. Drew recommended an emetic of ipecacuanha at the outset, salt pork rind poultice to outside of neck, tr. ferri chloridi, chlorate of potash.

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* This Committee have since issued the following blank form of Therapeutical Inquiries, which they will be pleased to forward to any regular physician who is willing to report upon any of the medicinal agents marked 1, 7, 8, 9, 10 and 12 in the preceding list.

Therapeutical Inquiries of the Middlesex (Mass.) East District Medical Society, , 186 .

NAME OF REMEDY.	PROPERTIES FOR INVESTIGATION.	PREPARATIONS.	DOSE.	MODE OF ADMINISTRATION.

No.	Name of Patient.	Nativity.	Age.	Temperament.	Sex.	Stage of Disease.	Mode of Treatment.	Combined or Uncombined.	Results of investigation.

This schedule, when filled, is to be returned to either of the Committee on Therapeutical Inquiry—Drs. E. Cutter, Woburn; Charles Jordan, South Reading; and R. L. Hodgdon, West Cambridge. Returned by

Dr. A. Chapin—tonics, stimulants, chlorate of potash, nitrate of silver topically.

Dr. J. D. Mansfield—tr. ferri chloridi. A solution of sulphate of zinc—five grains to one ounce of water—topically, he believes will remove the false membrane. He has observed, in twelve cases, the most beneficial effects from its use. In a boy, the membrane on the tonsils was removed in twenty-four hours. Dr. M. had the disease himself, and exhibited on his own right tonsil a small remaining patch of lymph.

Dr. Hodgdon recommended iron, quinine, beef. No local application.

Dr. Jordan—quinine, chlorate of potash, tr. ferri chloridi internally and topically, diluted with twice its bulk of water; support, nourishment.

Dr. Dale—brandy, quinine, beef, chlorate of potash locally in powder. Had used cimicifuga racemosa without effect.

Dr. Wakefield—stimulants, tonics, sulphate of zinc locally.

Dr. Mansfield considered it as contagious as typhoid fever. Dr. Jordan did not.

Adjourned eight weeks.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MAY 28, 1863.

Adulteration of Milk.—In our issue of February 26th ult., we endeavored to place before our readers a full representation of the manner in which Boston is supplied with milk, the extent to which its adulteration is practised by dealers in it, and the difficulties experienced by the prosecuting officer in bringing such offenders to justice. We published at that time the Act in relation to the sale of adulterated milk, and stated that the Committee on Agriculture then had the subject under consideration for the purpose of making the statute, if possible, more stringent. We suggested that the first offence should be made punishable by a fine of one hundred dollars, and that the second should send the guilty party to prison. We also stated our opinion that the city should enforce a stricter ordinance in relation to registration, and should refuse a license to any person twice found carrying adulterated milk.

It will be seen by the new act, which has been separately published and distributed by Mr. Faxon, the Inspector of Milk for the city, among the dealers in this article, that the Legislature received the report of the Committee favorably, and have made the penalty much more severe than it formerly was: not only increasing the amount of the fines, but sending the convicted person to the House of Correction for the third offence, and causing his name to be published in the newspapers. The following is the Act:—

Be it enacted, &c., as follows:—

Sect. 1. Whoever buys or sells milk by any other measures, cans, or vessels than those sealed as provided in the one hundred and fiftieth section of the forty-ninth chapter of the General Statutes, shall for one violation pay twenty dollars, and for a second and each subsequent violation fifty dollars.

SECT. 2. Whoever adulterates, by water or otherwise, milk to be sold in this State, or, being recorded in the books of the Inspector as a dealer in milk, conveys from place to place, or knowingly sells or causes to be sold adulterated or unwholesome milk, shall for one violation pay twenty dollars, for a second violation pay fifty dollars, and for any subsequent violation be imprisoned in the House of Correction not less than thirty nor more than ninety days; and whoever, in the employment of another, knowingly violates any provision of this section, shall be held equally guilty with the principal, and suffer the same penalty or punishment.

SECT. 3. It shall be the duty of the Inspector to cause the name and place of business of all persons convicted under the preceding section, to be published in two newspapers printed in the town or county where the offence may have been committed.

SECT. 4. So much of Section one hundred and fifty-one of the forty-ninth chapter of the General Statutes inconsistent herewith is hereby repealed.

Approved April 6, 1863.

City of Boston.—Notice is hereby given that the undersigned has been appointed *Inspector of Milk* for the City of Boston; and all persons selling milk within the city, are hereby requested to conform to all the requirements of the law relating to the same. All persons aware of any violations of said law, are invited to report the same to the Inspector, Room 15, Niles Block, opposite City Hall, Court Square, where the books are now open for the registry of all dealers in milk.

April 6, 1863. HENRY FAXON, *Inspector.*

N. B.—The law requires that dealers in milk at wholesale and retail, from wagons, cellars, shops, stores, or market-places, within the limits of the city of Boston, shall register their names at the above office.

It now remains for the city government to sustain this praiseworthy action of the Legislature by passing an ordinance by which a license shall be refused to all persons found guilty of the above offences, and we trust the Committee on Internal Health will see to it that everything possible is done to break up a practice so detrimental to the public health.

ANOTHER EXPLOSION RESULTING FROM THE INFLAMMATION OF THE GASES OF A PRIVY.—It has been determined, as is well known, in certain cases, that the hydrosulphuric acid gas in privy-vaults may be mixed with atmospheric air under such conditions that the mixture becomes susceptible of inflaming and causing accidents more or less grave. We have several times had opportunity to verify this fact, which has recently occurred again.

A little girl, 7 years old, living with her parents, *rue de Malte*, 7, went to the public privy in the evening with a light. Scarcely had she entered when a loud detonation was heard; she felt a great shock, and found herself fortunately thrown out of the cabinet. It was the sulphuretted hydrogen gas which produced the explosion. The concussion was so violent that the slab which closed the vault was found lifted up. No one, fortunately, was injured, and measures have been taken to prevent accidents in future. It is very fortunate that cases of the union of the gas of privies with atmospheric air, in proportions capable of producing an explosion, are rare.—*Journal de Chimie Médicale.*

ARMY MEDICAL MUSEUM.—We have received from the Surgeon-General a catalogue of the Army Medical Museum at Washington, prepared by Assist. Surgeon Wm. Moss, U.S.V., Assistant Curator of the collection. It is simply a numerical list of the objects at present contained in the Museum, which now consists of 985 surgical and 106 medical specimens, and 133 missiles extracted from the body. A series of projectiles, numbering 125, and a complete set of the various patterns of bayonets used in our own and foreign services, have very appropriately been presented to the Museum by Brig. Gen. Ripley. The dried preparations are mounted upon stands, and the wet ones have been placed in glass jars. Those who have examined the collection describe it as one worthy of the highest admiration, and as reflecting great honor and credit upon its originator, Surgeon-General Hammond, and its curators, Drs. Brinton and Moss. It will form an invaluable accompaniment to the medical history of the war.

RAILROAD FARES TO PITTSFIELD.—We are authorized to state that the Western, Boston and Worcester, and Connecticut River Railroads have agreed to an abatement of one half the regular fares from any point on those roads to Pittsfield and back, going on the 16th and 17th, and returning on the 17th and 18th of June, in favor of members of the Massachusetts Medical Society desirous of attending the annual meeting. The other roads in this State will probably agree to a similar accommodation.

ABUSE OF MERCURY IN THE ARMY.—The following is a copy of Circular No. 6, issued by the U. S. Surgeon-General, under date of May 4th inst.

"I. From the reports of medical inspectors and the sanitary reports to this office, it appears that the administration of calomel has so frequently been pushed to excess by military surgeons as to call for prompt steps by this office to correct this abuse; an abuse the melancholy effects of which, as officially reported, have exhibited themselves not only in innumerable cases of profuse salivation, but in the not infrequent occurrence of mercurial gangrene.

"It seeming impossible in any other manner to properly restrict the use of this powerful agent, it is directed that it be struck from the Supply Table, and that no further requisitions for this medicine be approved by medical directors. This is done with the more confidence as modern pathology has proved the impropriety of the use of mercury in very many of those diseases in which it was formerly unfailingly administered.

"II. The records of this office having conclusively proved that diseases prevalent in the Army may be treated as efficiently without tartar emetic as therewith, and the fact of its remaining upon the Supply Table being a tacit invitation to its use, tartar emetic is also struck from the Supply Table of the Army.

"No doubt can exist that more harm has resulted from the misuse of both these agents, in the treatment of disease, than benefit from their proper administration."

STATISTICS OF OVARIOTOMY.—At a meeting of the Obstetrical Society of London, March 4th, Dr. Clay, of Manchester, gave a brief and interesting outline of his experience in this very important branch of surgery. Of 109 peritoneal sections, 104 were for ovarian extirpation, 3 for cutting down upon the tumor to establish ulceration where its removal was known to be impracticable, 1 for Cæsarean operation, and 1 for the removal of both uterus and ovaries. Of the 104 ovarian cases, 72 recovered, 32 died; all the 3 ulcerative cases recovered; the Cæsarean section lived to the fifteenth day; and, lastly, the case of the entire removal of both uterus and ovaries recovered. Of the 32 deaths, 10 died from the immediate consequences of the operation, 10 from inflammation, 10 from prostration, and 2 from hæmorrhage. The great majority of the first and second series were young females, as well as a portion of the third division. Those from prostration were chiefly elderly females.—*London Lancet.*

THE next annual meeting of the American Medical Association will be held at Chicago, commencing on Tuesday, the 2d of June next; and that of the American Pharmaceutical Association at Baltimore, on the 8th of September next.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MAY 23d, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week	41	38	79
Ave. mortality of corresponding weeks for ten years, 1853—1863,	34.0	36.6	70.6
Average corrected to increased population	00	00	77.81
Death of persons above 90	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
20	5	0	4	0	1	2	1

COMMUNICATIONS RECEIVED.—Papers have been received from Prof. Thomas D. Mitchell, M.D., Dr. John Green, Dr. D. W. Cheever, and Dr. Thomas T. Smiley, Philadelphia.

BOOKS RECEIVED.—Obstetrics; the Science and the Art. By Charles D. Meigs, M.D., &c. Fourth Edition, revised. Philadelphia: Blanchard & Lea.—A Practical Treatise on Fractures and Dislocations. By Frank H. Hamilton, A.M., M.D., Lt.-Col., Med. Inspector, U.S.A. Second Edition, revised and improved. Philadelphia: Blanchard & Lea.—Diseases of the Skin. By Erasmus Wilson, F.R.S. Fifth Edition. Text and Plates in one volume. Philadelphia: Blanchard & Lea.—Handbook of Medical Chemistry. By John E. Bowman, M.D. Fourth Edition. Philadelphia: Blanchard & Lea.

JOURNALS RECEIVED.—Buffalo Medical and Surgical Journal, May, 1863.—Chicago Medical Journal, May, 1863.—American Medical Times, vol. vi., No. 21.—Medical and Surgical Reporter, vol. x., No. 3.—New York Dental Journal, March, 1863.

MARRIED,—At Bedford, N.H., 3d ult., Dr. Lucien Ingalls, of Andover, Me., formerly of Merrimack, N. H., to Miss H. T. W. Nevins, of Bedford, N. H.

DIED,—Near Jackson, Miss., on the 2d inst., Dr. Samuel A. Cartwright, aged 72. Dr. C. was well known to the readers of this JOURNAL in former years as a frequent contributor to its pages. His last communication was in volume 52, and contained an account of a new cure for obstinate bleeding following the extraction of a tooth. His previous papers on the sugar-house cure for consumption were read with much interest, especially by our Southern subscribers.—In Angelica, Allegany County, N. Y., April 24th, of erysipelas, Richard Charles, M.D., aged 65 years and 5 months.

DEATHS IN BOSTON for the week ending Saturday noon, May 23d, 79. Males, 41—Females, 38.—Abscess, 2—accident, 1—anæmia, 1—apoplexy, 2—congestion of the brain, 2—disease of the brain, 1—inflammation of the brain, 1—bronchitis, 2—cholera infantum, 1—consumption, 20—convulsions, 5—croup, 5—cyanosis, 1—diphtheria, 1—dropsy, 2 —dropsy of the brain, 2—dysentery, 1—erysipelas, 1—typhoid fever, 2—infantile disease, 2—intemperance, 1—jaundice, 1—congestion of the lungs, 1—inflammation of the lungs, 4—marasmus, 3—old age, 2—paralysis, 1—peritonitis, 1—pleurisy, 1—premature birth, 1—pyæmia, 1—sore throat, 2—tabes mesenterica, 1—unknown, 2.

Under 5 years of age, 33—between 5 and 20 years, 5—between 20 and 40 years, 18—between 40 and 60 years, 9—above 60 years, 14. Born in the United States, 53—Ireland, 26—other places, 0.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

Vol. Lxviii. Thursday, June 4, 1863. No. 18.

THREE CASES OF OPERATION FOR THE RADICAL CURE OF CONGENITAL INGUINAL HERNIA;

WITH ONE SUCCESSFUL, ONE PARTIALLY SUCCESSFUL, AND ONE UNSUCCESSFUL RESULT.

By David W. Cheever, M.D., Boston.

[Communicated for the Boston Medical and Surgical Journal.]

Case I.—Daniel S——, a healthy boy, eight years of age, has a congenital inguinal hernia of the right side, producing a tumor in the scrotum as large as a hen's egg. The ring is large enough to admit the fore-finger with ease, and to a considerable depth. The scrotum is not much thickened; the cord and testes are healthy, and there is no varicocele. The intestine is reducible by himself with great facility, and returns into the scrotum as soon as he assumes the erect posture. He has worn a truss, but has latterly been unable to keep the hernia up with it, and has left it off. Bowels regular; otherwise well. The healthy and uncomplicated state of the parts, and the constitution of the boy appearing favorable for an operation, it was decided to attempt a radical cure of this infirmity, which was increasing with his years.

March 21st.—The bowels having been cleared with castor oil, and the bladder emptied, he was etherized, placed on his back, and the hernia reduced, and kept up by the finger of an assistant pressing over the internal ring.

The skin of the scrotum was invaginated into the inguinal canal, and, with the cord lying beneath the back of the finger, the inner pillar of the aponeurosis of the *external oblique* muscle, and the conjoined tendon of the *internal oblique* and *transversalis*, were raised upon the tip of the finger towards the skin, about half an inch above the *pubes*. A curved needle, armed with a silver suture, was now entered over the tip of the finger from above the *pubes*, carried through the inner pillar and invaginated scrotum, and thence, protected by the finger, out just below the pubes, where the invaginating finger was first entered. The needle was now detached. Next, armed anew with another silver suture, it was entered from below, passed by the outer side of the finger through Poupart's ligament, and thence across the ring, emerging at the same point through the skin, just above the pubes, as the first suture had entered. The four ends of the silver suture were then passed through two holes of a large button, and clamped pretty tightly over it. The boy now vomited and strained violently from the ether, but the hernia did not come down. He was now put to bed on his back; given one teaspoonful of paregoric, to be repeated if necessary. He was ordered gruel; to remain strictly in the horizontal posture, and have his wound constantly wet with cold water.

With the exception of some pain and tenderness over the abdomen, accompanied with but little fever, everything went on well for three days. Some discharge began to appear around the button, and at the point of invagination.

March 24th.—He was given some castor oil. In the night he got up unperceived, walked to the water-closet, and had one large evacuation, and sat and strained, with stomach-ache, as he thinks, nearly an hour. Severe orchitis now supervened, which ran a course of about a week, and then gradually subsided. The testicle was much enlarged during the acute stage, and very painful. It was treated with cold applications, and opium internally. There was a good deal of purulent discharge around the stitches, and a sinus opened above the pubes. But the sutures held on; the bowels and urine were well; there was no descent of the intestine, and the testicle passed out of the acute stage. Three weeks and a half after the operation, the sutures were removed. It was noticeable, that although blackened by contact with pus elsewhere, yet at their points of perforation of the pillars of the ring, the wires were as bright and clean as when first introduced, showing that they had produced very little suppuration at the immediate point of puncture. In one week more the sinuses were closed; the hernia remained up; the scrotum was well invaginated, and everything promising. He was now, one month after the operation, allowed to get up and walk about the room. No truss was applied.

May 23d, *one month* after getting up, and two months after the operation, the scrotum remains firmly invaginated; the testicle painless, and about one third larger than the other; the inguinal canal appears filled with a dense deposit of lymph; the hernia remains up, and there is no bulging. He feels well; has regained his flesh and activity, and plays about with other boys. So far there is no disposition to a return of the hernia; though, of course, the cure cannot be called *radical* until verified by the lapse of many months. No truss was advised.

Case II.—William M——, 12 years old, has a congenital inguinal hernia on the right side, of moderate size. The ring, however, is large, admitting the thumb without difficulty. Testicle, cord, and spermatic plexus of veins, healthy; otherwise strong and active. Has worn different trusses, which were made for him, for years, but cannot keep it up with them. The difficulty is increasing as he grows.

April 13th.—After being etherized, and the hernia reduced and held up as before, an incision about three fourths of an inch long was made through the skin of the scrotum of the right side, at its lower part. The fascia of the scrotum was now dissected subcutaneously from the skin, to which it adheres only by loose cellular tissue, for a space about an inch and a half in diameter all round; or until the fascia could be invaginated into the inguinal canal, without puckering the skin. The forefinger of the right hand being placed over the cord, and invaginating the fascia of the scrotum as high up into the inguinal canal as possible, a needle, with the eye in the point, was next carried up along the finger and made to perforate the conjoined tendon and inner pillar near the internal ring. The skin over the point of the needle was then drawn a little inwards and upwards, and it was made to emerge, when it was threaded with a silver suture and withdrawn, leaving one end of the wire projecting above the *pubes*. Next, the finger was turned downwards and outwards beneath Poupart's ligament, pressing the cord back out of the way. The needle was next made to perforate Poupart's ligament, from within outwards, and as near the central point between the anterior superior spine of the *ilium* and the spine of the *pubes* as possible, and then, by drawing the skin downwards and outwards, the point was brought out, by a little manipulation, at the same hole where the first stitch emerged above the pubes. Here a loop of the suture was retained, and the needle again drawn back. The finger being now turned upwards and *inwards*, and the needle following it, it was made to pierce the inner pillar and triangular ligament at the edge of the *rectus*, and again brought out, for the third and last time, through the same puncture, above the pubes. The needle was now detached and the finger withdrawn. There were now left out above the pubes, two free ends of the wire suture, which had passed through the inner pillar, one near the internal ring, and the other near the edge of the *rectus* muscle; and a loop, whose other end was encircling Poupart's ligament, at a point nearly half way between the *pubes* and *ilium*. The loop and the free ends were now crossed and brought through two holes of a button, and clamped firmly over it. Previous to this, however, it was found, on passing the finger into the inguinal canal, that the fascia of the scrotum was tightly drawn up into this cavity, that the cord and testicle were free, and that on drawing the wires, the sides of the inguinal canal were approximated to each other.

It is, perhaps, right to add, that the instruments with which this operation was done were poor, and not entirely adapted to its difficulties, and that it was feared at the time that it might be but imperfectly performed. As in the previous case, vomiting now recurred, and failed to bring down the hernia, and the same treatment was adopted as before.

There was no orchitis; very little pain; not a bad symptom; on the contrary, it was feared he was not getting up inflammation enough for a cure. There was a pretty free suppuration around the stitches, and through the incisions in the scrotum. The sutures were removed in two weeks and a half after the operation, and in four days more the wounds had closed. He was now, three weeks after the operation, allowed to sit up, and move about the chamber. The hernia remained up, and there was some induration along the course of the inguinal canal. The skin of the scrotum was not puckered at all.

May 13th.—About one fortnight after getting up, a slight protrusion was noticed at the internal ring, and the hernia slowly came down through the outer ring, towards the scrotum. Examination by the finger revealed the external ring reduced in size about one half, with firm, sharp and defined edges, showing it the result of actual approximation of its walls, and not of soft effused lymph. There was also so much thickening of the scrotal fascia and cellular tissue over the ring, as to preclude the performance of a secondary operation at once. He was therefore advised to wear a truss, with a weak spring and a flat pad, for some weeks, and then, if not entirely relieved, to submit to another operation, which, if it accomplished only so much as the first, afforded good promise of a radical cure.

Case III.—John A——, aged 8 years, has a congenital inguinal hernia on the left side. The tumor in the scrotum is enormous for a child, reaching more than one third down the thigh. Considerable taxis is required to reduce the hernia; due more to its size, to a considerable thickening of the scrotal cellular tissue and a varicocele, than to any obstruction about the ring, which is so large as to admit readily the thumb, and to allow the fore-finger to sweep round under the *rectus*, down behind the pubes on to the bladder, upwards over the external iliac artery, and outwards into the femoral canal, beneath Poupart's ligament. The child looks a little lymphatic, and not of so tough a fibre as the former cases; yet his general health is good.

May 2d.—He was etherized, and operated on as in the second case, by a subcutaneous dissection of the scrotal fascia, two stitches through the inner pillar and one through the outer. The only points of difference in this operation were, that the common silk ligature was used instead of the silver suture, as being more easily manipulated, and that the stitches were passed by an instrument resembling a rather sharp aneurism needle. Very complete closure of the inguinal canal and external abdominal ring were obtained, by drawing the stitches tight over a pad of soft wood, placed over the canal. Water dressing, paregoric and gruel, as in the former cases.

May 3d.—A little feverish; doing well.

4th and 5th.—Considerable swelling of scrotum, but not of testis. The point of suture inflamed and suppurating. No serious symptoms.

6th.—Free suppuration.

7th.—"Something gave way," probably the stitch through the outer pillar, and the intestine came partly down. There was a good deal of pus forming around the wound. No appearance of severe inflammation. As the stitches were doing no good, and only increasing the ulcerative action, they were removed on May 10th. The wounds then shortly closed, and the bowel resumed its normal situation before the operation. Nothing farther can be done at present.

I am disposed to ascribe the entire failure in the third case to several causes; as, first, want of sufficient constitutional vigor in the patient to get up a good adhesive inflammation, which degenerated at once into ulceration; the presence of thickened cellular tissue, and of a considerable varicocele in and about the canal, and, possibly, increased irritation and suppuration set up by the silk ligatures, over the silver wire used before. So far as the mere performance of the operation went, and the mechanical occlusion of the opening, it was more perfect than either of the others; both from practice, and also from my having a more suitable instrument.

The first case was operated on after Gerdy's method, one of the earliest of those attempted for the radical cure of hernia. The other two were done by the method recently introduced and recommended by Mr. John Wood, of London, Assistant Surgeon and Demonstrator of Anatomy at the King's College Hospital and School. A very minute description of his method, with illustrations, may be found in the *Medico-Chirurgical Transactions*, Vol. 43, 1860. And we propose, while speaking of the operation in general, to refer to some of the more prominent points and advantages which he claims as his own.

In Gerdy's method, the skin and fascia covering the sac are invaginated, and held in that position by a ligature thrust through the inter-columnar fascia and skin of the groin, till adhesion takes place at the point of ligature. The method proposed by Wurzer substitutes for the finger of the operator a wooden plug, variously modified, with the intent to fill the canal and openings, and to stretch them so much as to set up adhesive inflammation all round the invaginated sac. The danger of peritonitis, which is regarded by many as a serious objection to any operation of this kind, may be considered as pretty nearly equal in all. But the results of numerous cases operated on seem to prove that the danger is by no means great, nor sufficient to deter the surgeon from endeavoring to perfect our means of cure of this common deformity. "A much more awkward objection," says Mr. Wood,* "is drawn from the inefficiency of these methods. In all the cases of Wurzer's operation which have come under my observation, the result has been entirely unsatisfactory; the rupture re-descending on leaving off a truss. And this, I believe, is a very general impression among the surgeons of this country, France and Germany." He goes on to say that the causes of failure are as follows:

The inefficiency of the steps taken to cause adhesion of the surfaces of the posterior fold of the invaginated sac together, and to the posterior wall of the canal. Into this fold, forming thus a secondary sac, the descent of a knuckle of intestine is imminent.

The action of the plug is to dilate the opening and the canal, instead of contracting them; the external ring and canal being left very patulous after Wurzer's operation.

The elastic reaction of the skin, and the weight of the testis and scrotum tend, consequently, always to drag down the invaginated tissues. In cases, again, with narrow canals, failure is owing to the impossibility of invaginating the skin as far up as the internal ring. And much of the mass of inflammatory thickening and exudation, obtained by these operations, is temporary only, being sooner or later absorbed.

In order to avoid these sources of failure, Mr. Wood thought better to proceed upon a principle directly opposite to that of dilatation, namely, *that of drawing together and compressing by ligature the abdominal opening and inguinal canal, so as to cause their sides to adhere together.* And he also thought best *to give the operation a subcutaneous character*, so as to reach to a higher point within the canal, and to lessen the bulk of the transplanted tissue. These two principles combined he claims to be new in the cure of hernia.

After describing his operation at length, which we think it unnecessary to advert to again, and stating that he uses a strong, smooth hempen thread, waxed and soaped, for his sutures, he goes on to say, that the advantages of the double ligature are—

1st, That of additional security against immediate protrusion.

2d, That of producing action in the whole extent of the canal, by obtaining two tracks, and a broad intervening surface of adhesive effusion.

3d, The more effectual occlusion of the external ring, upon which the lower ligature directly acts. By tightening the string, the surgeon may obtain direct evidence of the effect of the ligatures in closing the canal, on placing his finger therein. If the stitches are properly placed, the canal will be found completely occluded.

The results intended to be obtained by this operation, Mr. Wood briefly recapitulates, as follows:—

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* Medico-Chirurgical Transactions, 1860, pp. 73–4.

The posterior and superior boundaries of the dilated canal are drawn forwards and downwards towards Poupart's ligament, and become united by inflammatory effusion, in the area of pressure exercised by the ligatures, to the anterior and inferior boundaries. By the use of the two ligatures, this takes place from the internal opening above, to the external ring below. The effect of this adhesion is to make the posterior wall act like a valve, excluding the bowel by closing against the anterior wall. This action is aided by the contraction of the cicatrized tissues, and increased by the subsequent downward traction of the testis and scrotum. In this way we have an assurance, that the older the cure and the more the pressure, the greater the mechanical resistance and security against the return of the protrusion. The spermatic cord is embraced by the contracting tissues in the groove behind Poupart's ligament, which protects it from undue pressure.

The consolidation and contraction of the tendinous boundaries of the canal, in the track of the ligatures, render them more capable of resisting pressure from within, and so increase the strength of the parts. It must be noticed that the primary dilatation of the canal in the formation of oblique inguinal hernia, is chiefly produced by the yielding of the superior and posterior walls at the upper part of the canal. In most patients who have a tendency to hernial protrusion, a bulging is apparent at the internal ring, from a deficiency in the development of the lower fibres of the internal oblique, which cover that opening in front. In muscular subjects, this is rendered much more prominent during the contractions of the *recti* muscles, which, by virtue of their compressing action upon the bowels, draw backwards with them their sheath, formed by the conjoined tendon above the point of splitting of the internal oblique portion of it. In these subjects there exists a disproportion between the muscular contracting force of the recti, and the tendinous and muscular resisting forces of the internal ring; and the upper part of the canal is opened, as it were, by the backward traction of the recti muscles upon the conjoined tendon, as well as by the yielding of the anterior wall. This action, associated with deficient development of the lower part of the internal oblique, appears to me to be the main cause of inguinal hernia in muscular subjects. It will be seen that the two internal ligature tracks of adhesion directly counteract the effects of this action, by drawing the cicatrix of the skin and anterior wall of the canal backward with the conjoined tendon, as may be seen upon patients cured by this operation, by a depression of the cicatrix during the action of the recti muscles.

The invaginated and transplanted fascia adheres on its opposing raw surfaces by means of a cord-like connective tissue, which is formed in front of and is adherent to the spermatic cord; by similar fibrous tissue, formed in the tracks of the ligatures, the fascia is further held firmly within the canal, and connected with the skin at the upper cicatrix. To obtain this result, as well as to gain a more distinct perception of the parts within the canal, is an object clearly worth an incision half an inch long in the skin of the scrotum, and a separation of the fascia. Without the incision it is impossible to get a hold with the needle upon the conjoined tendon. But by passing the skin itself through the external ring, the borders of the ring are separated, and prevented from adhering together; while the closure or obliteration of the external ring by the lateral traction of the lower ligature drawing together the pillars, may be remarked as one of the original features of the operation, and as contributing much to its success.

In noticing the objections that have been made to the operation, it has been urged that the peritoneum, the spermatic cord, the epigastric vessels, and even the iliac vessels and the bowels, are endangered by the passage of the needle. But the invaginating finger is so placed as to fill up the internal opening, and keep out the bowel, and also to intervene between the spermatic cord, and the *fascia transversalis* covering the epigastric vessels and peritoneum, on the one hand, and the needle at the point of puncture, on the other. The best answer as to the danger of peritonitis is to be drawn from the total results of my (Wood's) cases, fifteen in number—all inguinal herniæ—in addition to the great number of cases in which Wurzur's plan, which interferes more with the peritoneum than mine, has been followed without bad results. The severity of an operation may be best judged by the duration of the after treatment. In only one case was the patient kept in bed more than a month—one was up on the ninth day, one on the eleventh, two on the twelfth, two on the fourteenth, four on the eighteenth; one, three weeks after; another, one month.

We may add to Mr. Wood's statements, that the three cases which head this article prove still more the immunity from serious danger of peritonitis, since all of them being congenital cases, and having no proper *sac*, the sutures necessarily traversed the unclosed peritoneal pouch, through which the testis originally descended; while in hernia, supervening later in life, the peritoneum may be pushed back out of the way, together with the intestine.

As to the efficacy of the operation, Mr. Wood presents in his report to the Medico-Chirurgical Society in 1860, six cases of cure; and many others are to be found in the British medical journals, since that date.

These six cases of cure vary in duration from the time of the operation, from eight months to nearly two years. One only is congenital; several are adults, who have worked regularly as laborers, harvesting, in dock-yards, &c., since the operation. Four of them have worn no truss from the moment of leaving their beds; the others have worn a truss temporarily. He advises no truss to be worn constantly, as it tends to promote absorption of the effused lymph by pressure, in his opinion. If, however, the abdominal parietes be weak and bulging at the internal ring after the operation, he advises the use of a truss with a weak spring, when the patient is at work. Mr. Wood thinks the most likely cause of failure in this operation consists in the operator placing his ligatures too low, and closing the external ring only, whereby he fails to obtain a hold on the posterior wall of the canal.

Neither of the three children whose cases are reported in this paper, were able to keep up their herniæ with a truss, or were benefited by one when worn, although the instruments were made and fitted by the best manufacturers. It is extremely difficult to keep a truss well fitted on a young, restless and growing child, and we are inclined to think that the cases in which a hernia with a large ring, or a congenital one, is benefited permanently, much more cured, by a truss, are few in number, and the exception rather than the rule.

The opportunity which a subcutaneous dissection of the fascia over a large ring affords for the anatomical study of the internal parts, is not the least interesting feature of this method of operating. Many things become very plain and palpable, which cannot be felt through the skin: such are the conjoined tendon, of which a new and more accurate idea may be obtained than in the dissecting-room; the iliac artery, Poupart's ligament, the crural canal, &c.

The question as to the relative merits of a silver, or a silk or hempen suture in these operations, must be considered as yet undetermined. If the former excites less irritation, it is also much more difficult to manipulate with gentleness and certainty.

Two of the cases reported must be held to be *adhuc sub judice.* But we have thought best to make them public at this early day for the purpose of calling attention to an operation which has been lately much and successfully done in England; which seems so much more rational than those formerly proposed, and which is free, so far as the results prove anything, from any great risk of peritonitis, or of any evil more grave than orchitis, and the usual dangers of any form of suppuration.

After a sufficient time shall have elapsed to afford a definite determination, we hope to give the ultimate result in the first case, and the consequences of a secondary operation, should one be done, in the others.

CASE OF RESECTION OF THE UPPER THIRD OF THE HUMERUS.

[Read before the Boston Society for Medical Improvement, and communicated for the Boston Medical and Surgical Journal.]

Newbern, N. C., May 3, 1863.

To W. J. Dale, *M.D., Surgeon-General, State of Mass.*

Dear Sir,—I send you, for the "Medical Improvement Society," a photograph of a patient on whom I operated, Sept. 18th, 1862, and a brief notice of whose case was published in the *Boston Med. and Surg. Journal* of Nov. 13th, 1862. There have been in this department, during the past year, four resections of the shoulder-joint, and two of the humerus in its upper third—leaving the joint intact. Of the first four, three made good recoveries. The fatal case was one in which a minié ball, having passed through the joint, buried itself under the scapula, and although diligent search was made at the time of operation, it could not then be discovered. Of the two cases of resection of humerus, one recovered, and one died from pyæmia. I have received the impression, from constant observation of these cases, that leaving the head of the humerus, in resection of its upper third, is of doubtful advantage. Its nutrition is imperfect, and the liability to serious constitutional disturbance seems greater than when the joint itself is removed.

The wound of John Dunham, whose picture accompanies this, was a very severe one. He was shot while on picket duty, Aug. 20th, 1862, a minié ball entering the left arm, three inches below the acromion, passing through the joint, under the left scapula, crossing the spinal column just under the skin, and lodging half way between the fourth dorsal vertebra and the right scapula. On the 18th September, I removed, by straight incision, the comminuted fragments of the glenoid cavity, including, of course, the attachment of the long head of the biceps, and the upper third of the humerus, just sparing the attachment of the deltoid. The recovery has been slow, but sure. After the first two weeks, constant pressure was made by an elastic band passing over the shoulder and elbow. The result is found to be a shortening of the arm 4 3-4 inches, very slight motion of the shoulder, tolerable freedom of the elbow, which constantly improves in extent of motion, and perfect use of the hand. The general health of the man could not be better. He now goes home, expecting to resume his old employment of railroad baggage-master.

In this connection, I will say that our remoteness from the homes of the soldiers has been to the surgeons of this department a great advantage, giving them rare opportunities for surgical observation and comparison. Instead of the wounded being sent away soon after an engagement, as has frequently happened elsewhere, they have generally remained here in charge of the operating surgeon until recovery was complete.

I remain always, very truly yours,

George Derby, M.D., *Surg. 23d Mass. Vols.*

The admissions into the Smallpox Hospital, London, which, in May, 1862, were only 9, rose in September to 34, in November to 70, and in December to 137 ; and during the first three months of the present year, nearly 450 cases have been admitted, while many patients have been almost daily refused admission for want of room.—*Lond. Lancet.*

CASE OF ADDISON'S DISEASE.

[Reported to the Boston Society for Medical Improvement, and communicated for the Boston Medical and Surgical Journal.]

By Calvin Ellis, M.D.

The patient was a gentleman, 37 years of age, and belonged to a healthy family. In 1843 he had a severe attack of typhoid fever, from which he very slowly recovered. With this exception, he had always enjoyed good health. His labors as a lawyer during the last two years of his life were at times excessive. In the winter of 1860 and spring of 1861, he complained more of fatigue than usual, but this was attributed to his close application to business. The debility slowly increased, the countenance became sallow, and he lost some flesh, but continued to attend to his business as usual, until about the middle of October, when he visited Washington, but exertion caused so much fatigue that the journey afforded him no pleasure. On his return, he was attacked, in Philadelphia, with symptoms like those which indicate the approach of typhoid fever. He reached home on the 28th of October. The mind was perfectly clear, and but little complaint was then or afterwards made of anything except debility, and at times restlessness or sleeplessness. There was occasionally a little fever. The pulse varied from 90 to 100. The bowels were generally costive, but great care was necessary in the administration of aperients, as faintness followed almost every discharge. The dejections were thin, and of a yellow color, like those of typhoid fever. Although the latter was not clearly indicated by the symptoms, and there was some doubt for a number of days, the appearance of an eruption on the abdomen, like that usually seen, seemed to make the diagnosis clear. The persistence of this, however, for some weeks, and the subsequent changes, make it probable that no such disease ever existed.

The prostration being marked, the treatment was of a tonic character and the diet nutritious, such articles of food being selected as were most easily digested. The appetite was deficient, and nausea was at times complained of. In the course of a month he began to improve a little, but never showed that disposition to rise, and the strong appetite, which so often indicate recovery from disease. Instead of wishing to do more than was safe, it was necessary to urge him to make any exertion. He very slowly gained, however, so that on November 17th he rode out, and continued to do so until the middle of December, when he returned to his office and spent several hours there daily for a short time; he then felt decidedly worse and confined himself mostly to the house, unless he rode out, which he frequently did. On Feb. 15th, he rode twenty miles in a close carriage, but was much fatigued on his return, and soon after was again confined to his bed. During all this time he gained no flesh, had but little appetite, and complained constantly of great fatigue and dyspnœa upon the slightest exertion. Upon one occasion he fainted soon after leaving the house in a carriage.

Repeated examinations of all the organs and functions failed to show any cause for the persistence of these alarming symptoms. The countenance had never lost the dark, sallow hue noticed early in the illness, and about the middle of March there was seen a decided dark-brown discoloration of the folds of the skin of the neck. The same was seen behind the ears, upon the shoulders and knees, but less marked. It was then ascertained that the change had existed for some time. An accurate examination could not be made, as it was necessary to divert the patient's mind from the subject. The worst fears were now expressed, but in a few days he began to improve. He had constantly complained of slight nausea, but the appetite now became quite strong, and his daily meals assumed great importance. The strength also improved, so that he went to the dinner table, saw his friends in the parlor, and rode out several times. This continued until a week before his death, but he did not gain flesh, and the discoloration of the skin never diminished. The strength and appetite again declined, but his condition was no more alarming than it had been months before, until the last two days, when nausea, debility and restlessness became very troublesome. Without any other marked change, he died on May 5th.

With the peculiar discoloration of the skin, the most striking symptoms were great debility and dyspnœa, the latter being, however, only another expression of the former, and never indicating any pulmonary disease. The mind was always clear, the pulse but slightly accelerated—though always very feeble, and there was very little fever. With these there was an entire absence of symptoms which indicated disease of any organ to which the attention of the physician is usually called.

At the *post-mortem* examination, the supra-renal capsules were found to be of twice or thrice the natural size, dense and disorganized, the tissue somewhat resembling tubercle. In some portions of the tissue was found fluid resembling recent pus. No other recent disease was found in the body. The discoloration of the skin was well-marked.

Army Medical Intelligence.

To the Surgeon-General. NEWBERN, N. C., May 12th, 1863.

SIR,—Knowing your desire to be kept informed of the condition of the Massachusetts troops, I take the liberty to write you now concerning the regiment under my charge.

At present we are engaged in taking down and rebuilding our barracks. Strangely enough, these were built directly in front of Fort

Gaston, and within seventy-five feet of the 32-pounders which *look* from the embrasures. It is worthy of remark here, that these buildings were occupied by a regiment which suffered from the brain disease which prevailed here the past winter. The 17th moved into the barracks the same day the other regiment moved out (now nearly four months ago), and no case of that disease has yet occurred, showing, as I stated to you in my last letter, that the disease was not wholly due to green barracks, as it prevailed almost exclusively among those who had *recently* arrived here. For military reasons the buildings are now being taken down, as they long ago should have been for sanitary purposes. As now constructed, they allow only about 180 cubic feet of air to a man, with no means of ventilation. They are built not only too near the ground, but in some places the earth was actually removed to make room for the sills. In this region, where malaria exists to a great extent, it is highly important that buildings intended for troops should be raised at least four feet from the surface, in order that the paludal poison, which hugs the ground, may be as much as possible avoided. No part of the new barracks will be less than four feet from the ground. A ridge ventilator, open about one foot, and covered with a hood, will be made the entire length of the buildings. Ventilators, opening a foot in width, will be made flush with the floor. That these may be closed in windy or stormy weather, a cover will be hung (by a hinge upon the upper edge) upon the outside of the building. This arrangement is highly important, as the ground which we occupy is fine sand, which is raised with every gust of wind. It will never be necessary, however, to close these ventilators on both sides of the building at the same time. I am under obligations to the commander of the regiment (Lt.-Col. Fellows) and also the commander of the brigade (Col. Amory) for the cheerful and prompt manner in which they have ever adopted my suggestions, having for their object the preservation of the health or the comfort of the men.

This is a miserable country. For the past year we have battled constantly with the "shakes": more recently with the brain affection, an account of which I gave you in my last letter. A new enemy now appears in the shape of chronic hepatitis. This disease exists only in the old regiments that were here the past summer; it does not appear to depend upon malaria, inasmuch as it originates indiscriminately among those who have suffered from fever and ague and those who have not. It is caused by long-continued exposure to heat, and is insidious in its attack.

The first symptom which attracts the notice of the patient is a swelling (the camp name of the disease is "swelled belly") in the epigastric region, accompanied with tenderness and a dull aching pain, which prevents him from wearing his accoutrements with ease. The waistband of his trousers is eight or ten inches too short: he has loss of appetite, nausea, and occasional vomiting. At this stage of the disease the patient is in good spirits, and treats his abdominal enlargement as a matter of joke: after a period of ten days these symptoms increase in intensity, the patient becomes depressed in spirits and gloomy, has pain in the right hypochondriac region, and difficulty of breathing while in the horizontal posture: tongue covered with yellowish fur. The enlarged liver can now be readily felt. The distension of the abdominal walls caused by the enlargement of the liver (and in some cases of the spleen also), flatulence and ascites combined, increases slowly, or it may remain nearly stationary for some weeks; it never diminishes, but sooner or later increases until the abdomen is enormously distended.

At this stage of the disease, it is plain that the man will never be able to resume his duties, and he is accordingly discharged the service; hence no opportunity has been offered for a *post-mortem* examination.

My usual treatment has been, in the first instance—mercurial and saline cathartics, then calomel in alterative doses, iodide of potash, and cream of tartar as a laxative and diuretic. In some cases the nitro-muriatic acid has been given. Quinine appears to aggravate the disease. Externally, cupping, blisters, iodine paint, Croton oil, turpentine epithems, and ointment of the iodide of potash. These remedies have been used as indicated by the symptoms, apparently without in the least modifying the progress of the disease; latterly I have pursued nearly an expectant treatment, using only palliative remedies.

I have seen in all about 100 cases; 17 of these belonged to my own regiment. They are all discharged the service. None of them have improved, but all have grown worse, with every indication of a fatal termination. In order to ascertain whether a change of climate would influence the course of the disease, I procured sixty days' furlough for two of the most promising cases, and directed the men to apply at the Mass. Gen. Hospital for treatment; these cases have progressed unfavorably, and to-day I learn the men are discharged from service. Impressed as I am with the fact that none affected with this disease will recover while they remain in the service, especially at this season of the year and in this climate, where the originating cause continues to operate, I shall procure the discharge of all who may hereafter become affected with this disease, as soon as the diagnosis becomes clear. My practice has always been to give every man a chance for his life. When it is evident he can be of no further use to the Government, he should be discharged, if possible, before his disability becomes permanent, or he is beyond the hope of recovery. I am happy to say that this course has been approved by Medical Inspector Mussy, who was here a short time ago.

Many men become so debilitated from repeated attacks of malarious disease, and long-continued exposure in this climate, that unless great care is exercised, their lives may be lost, when by a timely discharge and removal to the North, they would soon regain their health.

I remain, respectfully, your obedient servant,

Isaac F. Galloupe, *Surg. 17th Mass. Vols.*

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JUNE 4, 1863.

In the month of January last, some editorial comments were suggested to us by the mention in the *Medical Times and Gazette* of Nov. 22, 1862, of two deaths which had then recently been caused, in one London hospital, by the inhalation of chloroform. Our attention is again attracted to the subject by the statement of a correspondent of the same journal for April 11, 1863, that three more deaths have happened in the London hospitals, and that these, like the previous ones, have passed unnoticed by the medical journals. In a second communication to the *Medical Times and Gazette* of April 25th, this writer himself narrates them in the following language. "A few words will prove useful as to the latest deaths from chloroform in London. One is noted last week. A young woman, aged 29, Selina L., Edgeware Road, who died in one instant, apparently of syncope, as she was about to have a small tumor of the gum (epulis ?) removed. No one to blame, it being one of those singular and miserable cases of idiosyncrasy that can scarcely be anticipated. A second case of death was at Guy's Hospital. A man put under chloroform for a dislocation to be reduced. He bore the anaesthetic one day well, but the reduction was not effected, and he was desired to come again, I think, the next day; but he was only half way under chloroform when his death, as a flash of lightning, suddenly occurred. The third case was removal of a small tumor, I believe an asphyxia case. This and the fourth, somewhat doubtful, are described in the *Social Science Review*."

Such are the flippant terms in which the loss of four lives is referred to, and that, too, when it is wholly within the power of man to avert these constantly-recurring catastrophes. Nor are these all the "recent deaths" from this anaesthetic, for in the *Lancet* of May 16, 1863, an inquest is stated to have been held "on Monday last" over the body of a Dr. Evans, of Dalston, near Carlisle, who also died of chloroform, which it appears he was in the habit of using for the relief of pain. If we are to believe the astounding statement contained in an elaborate article on the use of chloroform in obstetrics, to be found in the May number of the *Dublin Quarterly* (p. 362), that one individual claims, as his own personal experience, "to have seen about five hundred cases restored to life, or rescued, after they were pronounced dead" from the effects of this agent, is it not surprising that fatal results should not occur with even greater frequency than they do? We gather these items from the single batch of English journals which the last steamer has just brought us. Yet with all their significance, and admitting, as they seem ready to do, that chloroform is on its trial, its advocates are willing to amuse themselves with the idea that "a Faradisation circuit, with an interrupted, broken current," applied by sticking pins into the phrenic nerve and the diaphragm, is the long-looked for antidote to its deadly influence, capable of restoring life in any one of the above cases, had its aid been properly invoked.

Really, the Royal Medico-Chirurgical Society appear to have but a limited choice left open for them. They must either ask their countrymen to eat humble pie, abandon chloroform and adopt sulphuric ether as the only safe anaesthetic, or else, imitating an example which they have so often ridiculed, concentrate the labor of their committee in a grand expiring effort at "whitewashing" the terrible record and death roll of chloroform, which, it seems to us, they can never dare to display in all its naked truth.

WHAT DOSE WILL KILL? *Messrs. Editors*,—The *Canada Lancet* for April 15, 1863 (politely sent to me by the publisher), has an article on

Large Doses of Digitalis, in which I find several facts detailed with a view to decide the query, "What dose will kill?"

In my lectures in Jefferson Medical College, many similar facts are annually developed, and my habit is to account for all of them on the principles involved in the doctrine of antagonism of poison and disease. To my mind, no other solution is philosophical or practicable, and hence I shall adhere to my present course, until convinced that a better can be substituted.

Those of my former pupils who may read this brief article will at once perceive that I am repeating on paper what they heard from my lips in the halls of their Alma Mater. My lecture on *Strychnia* is directly in point. It was there shown by facts, well authenticated, that the most virulent poisons, in the fullest doses, failed to kill. For instance, a man swallowed three grains of strychnia at a dose, and was saved by a more terrible poison, viz., nicotina. A dog was dreadfully poisoned by strychnia, suffering fearfully from the tetanic jerks induced by the alkaloid. In the hope of ending the agonies of the animal, his owner administered a spoonful of arsenious acid in milk. That dose saved the dog, and the cur ran about as though nothing had occurred to hurt him.

In another instance, a dog poisoned by strychnia was saved by the exhibition of hydrocyanic acid, in full poisoning dose.

Now substantially the same results have followed the use of digitalis as a remedy for existing disease. An old woman had to support a dropsical husband, and she became weary of it. An ounce of digitalis was procured, and the man with the ponderous belly had to swallow it. But did it kill him? Not at all, but just the reverse. It induced most copious and constant diuresis, and recovery ensued.

So it was in the Italian use of 100-grain doses of tartar emetic, to cure acute pneumonia. The dose was amply large enough to poison and kill. It would have done this, but for the doctrine of antagonism of poison and disease. The acute inflammation present counterpoised the otherwise fatal dose. The Italian doctors, in fact, said that the remedy spent its force on the lungs, and so the stomach was saved from injury.

The same doctrine accounts for the safety of exhibiting 600 grains of nitrate of potash in a few hours, to arrest a terrible hæmorrhage, or to cure an acute rheumatism.

Now, suppose a man to be perfectly well, and to swallow three grains of strychnia or twenty grains of arsenic, does any one doubt as to the issue? Death must inevitably ensue, if the case be left to itself, just because the poisons must develop their native powers when there is no inhering disease to antagonize their agency. On this very principle we employ our most efficient antidotes.

Why is it that a sober man, bitten by a rattlesnake, can be surely saved by simply making him dead drunk with whiskey or brandy? The latter would kill him, *per se*, if not bitten at all, but saves his life after the venomous wound has been inflicted. The only cases I have heard of in which the remedy has failed, were in men who had been for years notoriously intemperate. Whiskey in them had lost its power, by the force of habit, and of course could not save.

Silliman's Journal records cases of females saved from the poisonous action of arsenic by tobacco. This was given in order to empty the stomach of the poisonous dose. But the patients did not vomit at all, and yet recovered. The same administration would fail in a man who had all his life been a tobacco devotee.

The facts cited, in the *Canada Lancet*, by Dr. Bowman, all look in the same direction, and the query started by that gentleman in his paper finds its response in the doctrine I have named above, viz., the antagonism of poison and poison, or of poison and disease.

When a witness on the stand is asked what dose of any known poison will kill, his response must be non-committal. No man can give a direct answer. The habits of the patient control the result, often. The presence of severe disease has the same effect. The presence of a previously-administered poisonous dose is just as sure in its tendencies. So true is this last position, that I have ventured over and over again to say to my pupils, there is perhaps *no poison in the world for which some other poison is not a perfect antidote.*

Philadelphia. Thos. D. Mitchell, M.D.

Management of Labor among the Indians of the Far West.—The treatment of the parturient female by the several tribes of Indians which inhabit the frontier north of California, known as the Indian Reservation, is as follows: During the incipient stage of labor, she shuts herself up alone; when this period passes, and the labor proper is ushered in, she calls for help, when from four to six females rush to her relief. It may be remarked that these assistants had been previously selected by herself. One of these women acts as midwife, and her orders are implicitly obeyed, in a manner which would be well worthy of imitation by those more enlightened. During the labor, the woman sits upon the ground, and, as her pains return, four of her aids lift her up, and then forcibly thrust her back to the earth again. This process is continued until near the close of her labor; as soon as the head of the child has been delivered, it is seized by the midwife, who then carefully aids the mother in its expulsion.

When the child is born, the midwife removes, without delay, the placenta; the mother now remains quiet for fifteen or twenty minutes, when she goes to the nearest spring or pool of water, in which she bathes herself thoroughly. She is next caused to undergo a species of steam-bath, which is prepared by digging a hole in the earth, in which are placed hot stones, which are covered with sticks, over which are placed herbs; next water is poured upon the stones, the patient, meanwhile, being placed over them in such a manner as to be exposed to the vapor thus generated; she is exposed to this *medicated* vapor bath, wrapped in blankets, for half a day, and thus returns to her hut, from which I have often seen her come forth, in two or three days afterwards, in comparatively good health, and resume her ordinary avocations.

The new-born child is seldom washed, but it is wiped, and wrapped tightly in its blanket, and then placed in a willow basket, of such form as to neatly fit the babe, an opening being left for the face, but over this opening a lid is placed, and kept closed for a few days. In this basket the child is borne upon the mother's back until it is five or six months old; it is, no doubt, owing to this mode of being carried, that the exemption of the Indian race from spinal curvature is due.—Dr. W. P. Melendy in the *San Francisco Medical Press.*

Note on the Pathology of Tertiary Syphilis. By Dr. Diday, Lyons. —Tertiary syphilis should not be considered as one of the periods—as one of the stages of evolution of a disease. It is a distinct pathological stage, which, by its clinical characters, its prognosis, and its treatment, may be sufficiently differentiated from the morbid condition, with which there would be the greatest probability of confounding it—secondary syphilis. Thus, secondary syphilis can be produced at pleasure upon any individual (supposing he have not attained immunity by a previous attack of the disease); its radical cure is the ordinary termination; finally, its lesions are contagious. With tertiary syphilis it is different; it is impossible to produce it at pleasure, or even to foresee the cases in which it will occur; in general it continues and perpetuates itself in spite of every remedy; finally, its lesions are not contagious. If we compare the two groups, the characters of which I have enumerated, it will be seen that the characters of secondary syphilis belong to the class of virulent affections, or inoculations by morbid secretions (such as vaccinia and the eruptive fevers), while those of tertiary syphilis belong to the class of diathesis (such as some skin diseases and rheumatism). Tertiary syphilis, in fact, is only syphilis which, from the condition of an intoxication, has become a diathesis—which, from being essentially transitory, has become permanent. But as this transformation is very far from taking place in all syphilitic patients, the pathologist ought to inquire under what circumstances it takes place. Is it due to an excessive duration of the secondary period? By no means; syphilis sometimes pre-exists for three or four years under the form of simple secondary lesions, without on that account necessarily passing into the tertiary form. Is it due to the absence of specific treatment? Not at all. Independent observation has shown that tertiary syphilis occurs as often on omission as after the employment of specifics during the secondary stage. The true cause of the occurrence of tertiary syphilis—the cause which entails it upon three out of twenty affected with the secondary disease—is undoubtedly the variable strength of the original virus, but especially the variable degree of resistance which the organism of different patients opposes to the action of this virus. Individuals originally endowed with little vital resistance, or in whom this power of resistance has been enfeebled, whether by age or dyscrasiæ—whether by privation of pure air, of proper food, of sleep—whether by the effects of errors of regimen or the depressing passions—these are the persons in whom we most often see syphilis assume the permanent form, and take on the characters of a diathesis. Experience, in verification of these rational conclusions, confirms, by the failure of medicines, what I have said regarding the special obstinacy of this condition. Mercury, in spite of its title of specific, fails almost invariably. Iodine, an admirable palliative, is no more than a palliative. To cure, if it be possible, a diathesis, requires not less than the prolonged action of all reconstituent influences; requires not less than a radical and durable change of alimentation, of residence, sometimes of profession; in short, of all the habitudes, whether social or moral. In such a change alone can we look for the secret of getting rid of the disease. This is what few patients can be brought to understand, and what fewer still can be induced to put in execution: all which is an additional cause of the rarity of radical cures of tertiary syphilis.—*Edinburgh Med. Journal* from *Gazette Médicale de Lyon.*

For Tobacco Smokers.—Ferrier, an apothecary in Paris, proposes the following method of depriving the fumes of tobacco of their nicotia, and thus rendering them harmless to the smoker.

Cotton is soaked in a very dilute aqueous solution of tannic acid, strongly expressed and dried. Of the cotton thus impregnated, a pinch is put into a cigar- or pipe-holder, consisting of a tube, widened at one end and terminating at the other in a very narrow opening. The smaller end is put into the mouth—into the other end the cigar or pipe-stem. By the passage of the smoke through the cotton, the tannic acid absorbs all its nicotia. The cotton must of course be renewed from time to time.—*American Journal of Pharmacy* from *Wittstein's Vierteljahrs.*

Quinine in the Indian Army.—Dr. Macpherson, of Calcutta, informs us that since quinine has been extensively used among the troops in India, there has been a steady diminution of mortality; and whereas in 1850 the average percentage of deaths to cases of fever treated was 3.66, in 1856 it was only 1 per cent. in a body of 18,000 men scattered from Peshawur to Pegu.—*London Lancet.*

Revalenta.—M. Allewaert, a Belgian physician, has been at pains to examine and analyze the much advertised and lauded revalenta, especially because patients, beset in every book or newspaper they open by revalenta advertisements, insist upon their medical attendants prescribing the nostrum. By chemical examination, he finds that the revalenta is the flour of some leguminous plant, probably an exotic one, and very similar to pea or bean meal. It does not contain, as pretended, a large proportion of nutritive material, and, in fact, no more than ordinary pulse. The good effects recorded can easily be explained by the diet and restraint to which patients submit, and by noticing that success is recorded upon people who had previously been subjected to long courses of medicine. It is well known that, with such people, the giving up of physic, and the use of a moderate diet, ordered either by a homœopath or revalenta-dealer, will sometimes prove very efficacious.—*Ibid.*

We understand that Mr. Van Nostrand, 192 Broadway, has in press, and will shortly publish, a "*Manual of Instructions* for the guidance of Examining Surgeons in determining questions of admission into or discharge from the U. S. Army. Prepared at the request of the U. S. Sanitary Commission by Dr. John Ordronaux, Prof. of Medical Jurisprudence in Columbia College, New York."—*Am. Med. Times.*

Prof. Chas. A. Lee, writing for the *American Medical Times*, from Venice in Europe, says the Civil Hospital of that city, which dates as far back as the year 1485, is capable of accommodating from 1500 to 2000 patients. At the time of his visit there were 1000 inmates, under the charge of 11 principal surgeons and physicians, 11 assistant surgeons, 16 Sisters of Charity, 8 apothecaries, 1 director or acting principal, and 1 director-general. Both pauper and pay patients are admitted; the latter paying, according to accommodations, 88 cts., 55 cts., and 40 cts. per day.

Dr. Geo. F. Horton, of Terrytown, Pa., gives the results of some experiments made by him recently in the use of vaccine scabs obtained by inoculation from the cow. These results were unsatisfactory, vesication or scabbing following, he says, "not simply around the punctures, but also over various parts of the body and limbs, and, in children, occasionally upon the face."

A meeting of veterinary surgeons is to be held in New York on the 9th of June current, for the purpose of forming a National Society for the advancement and diffusion of veterinary knowledge.

At the thirty-third annual commencement of the New York College of Pharmacy, in March, five candidates received the degree of Graduate in Pharmacy; and at the commencement of the Philadelphia College of Pharmacy, also in March, twenty-two gentlemen received the same degree.

The United States Pharmacopœia of 1860, under the careful superintendence of the Editor, Dr. Bache, is now nearly finished—320 stereotyped pages having passed the Committee. The price, it is stated in the *American Journal of Pharmacy*, is to be $1 a copy.

The ninth annual session of the American Dental Convention will take place on Tuesday, August 4th, at Saratoga Springs, N. Y.

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, May 30th, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - -	41	30	71
Ave. mortality of corresponding weeks for ten years, 1853—1863,	37.8	34.1	71.9
Average corrected to increased population - - - -	00	00	79.24
Death of persons above 90 - - - - - - -	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
13	2	1	6	1	0	0	2

Communications.—The following papers have been received:—Punctured Wound of the Brain.—Case of Ovariotomy.—Very large Collection of Hardened Fæces throughout the Large Intestine, and the greater part of the Small Intestine; Perforation, without the usual consequences.

Erratum.—On page 332, line 4 from bottom, for "unusual" read *usual*.

Died,—In Danvers, May 26th, Dr. George Osgood.—At Dover, N. H., of apoplexy, Ex-Governor Noah Martin, M.D.—At Milton, May 18th, Elizabeth M., wife of Dr. C. C. Holmes.

Deaths in Boston for the week ending Saturday noon, May 30th, 71. Males, 41—Females, 30.—Abscess, 1—accident, 2—asthma, 1—inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 2—inflammation of the brain, 2—burns, 1—cholera infantum, 1—cholera morbus, 1—consumption, 13—convulsions, 2—croup, 2—diphtheria, 2—dropsy, 3—dropsy of the brain, 3—drowned, 1—scarlet fever, 1—disease of the heart, 4—infantile disease, 3—intemperance, 2—disease of the liver, 1—inflammation of the lungs, 6—marasmus, 3—measles, 1—old age, 2—pleurisy, 1—puerperal disease, 1—smallpox, 1—teething, 1—tumor, 2—unknown, 2—whooping cough, 1.

Under 5 years of age, 24—between 5 and 20 years, 6—between 20 and 40 years, 17—between 40 and 60 years, 15—above 60 years, 9. Born in the United States, 44—Ireland, 24—other places, 3.

THE

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ON AMPUTATION OF THE THIGH.

BY JOHN GREEN, FELLOW OF THE MASSACHUSETTS MEDICAL SOCIETY, LATE ACTING ASSISTANT SURGEON U.S.A.

[Communicated for the Boston Medical and Surgical Journal.]

It has been my duty during the past year to direct the treatment of a large number of soldiers who had suffered primary or secondary amputation of large limbs. Some of these cases were received immediately after the performance of the operation; the others after intervals varying from two or three days to as many weeks. An opportunity was thus afforded to observe the effects, in some instances, of neglect, and in others of good treatment, and to compare the results of various operative methods as practised by different surgeons. The study of these cases, followed by a partial review of the history of amputations, has led me to some conclusions which may perhaps be of interest to others.

I propose, therefore, to study some of the general questions connected with the subject of amputation of the thigh, adopting the usual division into circular and flap methods.

CIRCULAR AMPUTATION OF THE THIGH.

Before discussing any of the ordinary methods of operating, it may be profitable to study the very simple case of a circular amputation of the thigh in which all the soft parts are divided by a single sweep of the knife, and the bone sawn at the same level. After such an operation, the end of the stump at once assumes a conical form, from the retraction of the muscles; the muscular fibres which lie nearest to the bone, and which arise from or are inserted into it near its sawn extremity, contract but little, while the longer fibres and muscles, which are farthest removed from the axis of the limb, contract most, drawing with them the cut margin of the skin. This muscular cone soon becomes covered with granulations, which also arise at a later period from the cut end of the bone. As the process of cicatrization advances, the edges of the skin are gradually drawn towards the centre of the stump, and the superficial cells of the granulating bone become developed into an imperfect cuticle, which remains always tender, and from its exposed situation is subject to continual abrasions. Often the extremity of the bone exfoliates, after a tedious suppuration, a result much desired by the older surgeons, who were always careful to promote necrosis by the use of the hot iron and of caustics. The legitimate result, then, of such an operation is the miserable failure known as a "conical stump"; granulations form upon the soft parts and begin to retract before they have appeared at all upon the compact tissue of the bone, and the contraction of the cicatrix tends quite as much to draw the flesh away from the bone as to draw the skin towards it.

OLD OR "COMMON" CIRCULAR AMPUTATION OF THE THIGH.

The defects of this primitive kind of amputation were early recognized, and attempts were made to preserve enough of the soft parts to cover the end of the bone. This covering may be either of skin, or muscle, or both.

The origin of the practice of saving skin as a covering to the stump, is attributed to Cheselden and to J. L. Petit. These surgeons made first a circular incision of the skin and subcutaneous tissue, which was then drawn upwards by an assistant, or turned over like the cuff of a sleeve. A single sweep of the knife, applied close to the margin of the retracted skin, divided the remaining soft parts, which were drawn upwards by means of a "retractor," and the bone was sawn, as nearly as possible, at the level of the section of the muscles. This was a great improvement, and was at once adopted by English and French surgeons, but it by no means fulfils all the conditions of a good amputation, as I can testify from the study of several cases which I have had to treat. These stumps, a few days after the operation, generally presented a conical mass of retracted and granulating muscle, from the apex of which projected the end of the bone, not yet covered with granulations, and often denuded and dead for perhaps half an inch from its extremity. Surrounding the base of this cone of retracted muscle was the cuff of skin, barely sufficient, when brought together, to cover the end of the muscular mass, leaving the bone either wholly exposed between its lips, or else pressing so hard against the thin covering as to cause much pain, and even sometimes to make its way through by inducing rapid ulceration or sloughing. Even if the lips of the wound had already united by first intention,* the pressure of the still sharp end of the bone against the skin or new cicatrix threatened to open it again. At the best, the result was very imperfect, for the bone always remained very prominent, even if it became covered by skin, which was seldom the case.

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* I use this term in the sense in which it is employed by modern writers on surgery, including under it the two processes described by Hunter as "union by first intention" and "union by adhesion or adhesive inflammation," and which are more accurately designated by Mr. Paget by the names "immediate union" and "primary adhesion." In the healing of large wounds it is not easy, practically, to discriminate between these two modes of repair, and it is therefore convenient to retain this expression for the union which takes place prior to and independent of the formation of granulations.

The idea of protecting the end of the bone by preserving a cushion of muscle is as old as the time of Celsus,[*] who directs that the bone be separated from its attachments, for some distance above the level of the section of the muscles, and sawn as high as possible. Let us now study the effect of this shortening of the bone upon the progress and nature of the cure. The muscular section assumes, as in the last case, a conical form, owing to the greater retraction of the more superficial muscles, but the end of the bone, instead of forming the apex of the cone, lies buried among the muscles at the bottom of a deep pit or crater. As cicatrization advances, the edges of this crater are gradually drawn outwards towards the skin, whose margins are at the same time being drawn inwards towards the bone. The consequence is, that the crater becomes shallower, but the bone, if it has been cut short enough, and has not been separated from its attachments above the point where it was sawn, will still lie, safe from external injury, at the bottom of a little cavity in the end of the stump.

This precept of Celsus seems to have been forgotten until about the middle of the eighteenth century, when it was revived by Mr. Gooch,[†] an eminent surgeon of Shottesham, in Norfolk, in England. Gooch commenced his operation by dividing the soft parts, in the manner of Cheselden and Petit, by a double circular incision, but his great improvement consisted in the separation from the bone of the deep muscles and fasciæ to the additional height of about two inches, and sawing the bone at this higher level. Precisely the same operation was described several years later, by Mr. Benj. Bell,[‡] who was perhaps the first to distinctly inculcate the principle of "saving as much of the muscular substance of the limb as will completely cover the bone, together with as much skin as will cover the whole surface of the stump."[§] Bell states that by this method "the stump is covered with sound skin, as well as with some muscular substance, which admits of the patient resting upon it with freedom";[‖] and Gooch, in the description of a case, says that "the cicatrix was but a few lines broader than the diameter of the bone, which was left concealed in a little cavity."[¶] In the operation of Gooch and B. Bell, the separation of the muscles from the bone was effected by plunging a sharp-pointed knife or scalpel perpendicularly into the face of the stump, by the side of the femur, and carrying it, in the same position, entirely around the bone. In executing this manœuvre there is danger of separating the bone unequally from its attachments, and it may easily happen that the bone will be denuded, upon one side or the other, higher than the point where it is to be sawn. From this cause partial exfoliation of the bone may occur, with the effect both of retarding the cure and impairing the final result.[*] A better way of effecting the same object is to apply the retractor immediately upon the completion of the circular section of the muscles, and then to divide, in succession, with the edge of the amputating knife, such bridles of tendon or fascia as oppose themselves to the retraction. The chief obstacles to the retraction of the muscles will be found at the back part of the femur, in the aponeurotic tissues which are inserted into the linea aspera; and by dividing these in the manner described, the bone may be denuded to any desirable extent. After a sufficient portion of the bone has been thus exposed, it is well to make a final circular sweep of the knife close to the retractor, so as to divide the periosteum and thus guard against its possible laceration by the teeth of the saw.[†]

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[*] Celsus. De Medicina. Lib. vii., cap. xxxiii., De Gangrena.

[†] Cases and Practical Remarks in Surgery, &c. By Benjamin Gooch, Surgeon. London, 1758. Page 124.

[‡] A System of Surgery. By Benjamin Bell. Edinburgh, 1783. Vol. vi., p. 301 et seq. on Amputation.

[§] Ibid, vol. vi., p. 357.

[‖] Ibid, vol. vi., p. 378.

[¶] Cases in Surgery, p. 126.

This improved circular amputation, excellent as it is, has still an important defect. The muscles, which are divided in a plane perpendicular to the axis of the limb, immediately retract, and the section, from causes already explained, assumes the form of a cone. It would evidently be better if the cut surface of the muscles were made flat, instead of conical, for the bone would be better protected, and less skin would be required for a covering. This idea was in fact put in execution by the great French surgeon Ambrose Paré,[‡] who anticipated the retraction of the muscles by drawing them firmly upwards and holding them there while he made a single circular incision of all the soft parts. The same advice is also given by the distinguished Scotch anatomist and surgeon, Alexander Monro,[§] who expressly states that his object is to secure a perfectly flat-section of all the tissues of the limb. This flatness of the muscular tissue is most easily, and, at the same time, most surely attained by dividing the deeper layers of muscle twice. After the first section of the muscles, the soft parts are drawn upwards by an assistant,[‖] and the deeper fibres again divided down to the bone. The retractor is then applied, the tendinous attachments at the linea aspera are divided, and the bone is sawn as high as may be thought proper.

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[*] Gooch guarded against this danger by using, in this part of the operation, a knife bent so that the angle of the blade served as a guide to regulate the depth to which it could enter.

[†] The retractor invented by Gooch and adopted by B. Bell was made of strong leather, which has the great advantage over linen or cotton, that it does not impede the action of the saw by catching its teeth. This is a matter of some importance, for I have seen a surgeon cut the bone half an inch too low, rather than run the risk of getting the teeth of the saw caught in the threads of the retractor. Others have been led, for the same reason, to discard the retractor altogether, at the risk both of leaving the bone too long, and of tearing the flesh by the saw—which, to say the least, produces an unfavorable impression on the minds of the bystanders.

[‡] Works of Ambrose Paré. Book xii., chap. xix., on Amputation.

[§] Medical Essays and Observations, &c. Edinburgh, 1735. Vol. iv., Art. xxii.

[‖] The aid of an assistant in this part of the operation is indispensable in amputations performed under the influence of anæsthetic agents. Most of the standard writers on surgery speak of the spontaneous retraction of the muscles at the instant of their division by the knife, but this spontaneous muscular retraction does not occur when the reflex nervous action is suspended by a full dose of ether or chloroform.

This completes the history of one form of the circular amputation in the thigh. The essential points to be observed in its performance are—1st, To preserve skin enough to cover completely the end of the stump, without stretching. This rule is imperative if we hope for a cure by first intention,* but it need not be so strictly observed in cases where the wound is to be left to heal, from the first, by granulation. 2d, To divide the muscles so as to make the section as flat as possible. This is best effected by dividing the muscles down to the bone by two successive sweeps of the knife, beginning the second cut at the base of the cone formed by the retraction of the outer and longer muscular bundles. 3d, To separate the femur from its attachments at the linea aspera, and to saw the bone so high that it may be completely hidden in the muscles after the removal of the retractor.

In the normal condition of the tissues of the thigh, this operation may be easily and expeditiously performed; the divided integuments are easily retracted to the requisite extent by simply cutting the few bridles of loose connective tissue which tie it down to the fascia, and the muscles are as easily separated from the bone by dividing their attachments at the linea aspera. This operation is, therefore, well adapted to cases of primary amputation for injury, and to such chronic cases as have not been attended with inflammation of the parts in which the incisions are to be made. If, on the other hand, we have to deal with a case in which the limb has become inflamed, we shall find the various tissues so firmly glued together that it will require a laborious dissection to separate them. The skin will no longer slide upon the fascia, but will have to be carefully dissected from it and turned back like a sleeve; the muscles, too, cannot be retracted, at the time of the operation, without much difficulty, but will make up for this by excessive shrinkage at a later period. There is danger, therefore, that the bone may not be sufficiently protected by the soft parts, and a bad stump may be the consequence. This operation, therefore, answers better for primary than for secondary amputations, and I think it can be shown that for the latter class of cases, another method (the double-flap operation of Vermale) is to be preferred.

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* The skin saved for this purpose need not be in the form of a cuff; in fact, this form is not that best adapted to the formation of a symmetrical stump, for there will always be prominent "ears" of skin at the angles of the wound, which never wholly disappear. The more perfect (i. e. the flatter) the form of the muscular section, the worse does the cuff fit, and the more prominent are the "ears" of skin. It has been proposed to remove the projecting angles at the time of the operation, or what amounts to nearly the same thing, to modify the first incision of the skin by cutting it in the form of semi-elliptical flaps. Sir Charles Bell cut the skin in this form with the edge of the amputating knife, by changing its direction in different parts of the circumference of the limb (see Illustrations of the Great Operations of Surgery, folio, London, 1821). Sédillot (Traité de Médecine Opératoire, &c., 2me Ed., Paris, 1855, tome i., page 454) made two very thin flaps by transfixing the limb, and completed the section of the soft parts by a circular incision. The most perfect adaptation of the skin to the subjacent cut surfaces may be obtained by fashioning it in the form of either one or two flaps of a breadth equal to or a little greater than the diameter of the limb. If a single flap be chosen, its free extremity must be rounded, and its length should be slightly greater than the diameter of the limb. If, on the other hand, two flaps be made, they must be cut of a rectangular form, and may be either of equal or unequal dimensions, taking care, however, that their united lengths shall somewhat exceed the diameter of the limb. The choice between these different plans must often be decided by the state of the integuments on different sides of the limb, and will therefore depend, in a great degree, upon the nature of the lesion for which the amputation is performed.

The results of this operation, when performed upon a proper class of subjects and with a due regard to the three points above enumerated, are such as leave little to be desired, whether the cure be effected by first intention or by granulation. The end of the stump will be flat, or perhaps slightly rounded, with a central depression corresponding to the end of the bone, and will in most instances be capable of sustaining considerable pressure. The whole stump tapers symmetrically, and is admirably fitted to support the weight of the body in the conical socket of a modern artificial limb. If this method is adopted in cases in which the tissues have become consolidated and adherent to each other from the effect of previous inflammation, it will be easier to dissect up the skin in the form of flaps than of a cuff, and especial care must be taken to retract the muscles strongly, and to saw the bone at the highest possible point above the level of the section of the soft parts.

Circular Amputation of the Thigh, in which the Incisions are so managed as to give to the Section the form of a Hollow Cone.

Larrey and Dupuytren adopted, in the amputation of the thigh and arm, a method by circular incisions which is, nevertheless, so different from the common operation as to demand a special description. Its chief peculiarity consists in the form of the section, which is that of a deep hollow cone,[*] of which the cut margin of the skin forms the base, and the end of the bone the apex. This form is the result of several consecutive circular incisions, and is most readily obtained by the method of Dupuytren. An assistant draws up the skin and flesh as much as possible, and the surgeon, by a single circular sweep of the knife, divides all the soft parts nearly or quite to the bone. The cut surface of the muscles at once assumes the form of a cone, at the base of which the knife is again applied, and again carried round the limb, dividing everything to the bone. A third, and, if necessary, a fourth or fifth, circular section of the deepest muscular layers may be made with the greatest rapidity, and the bone is sawn in the track of the last incision. In this way the bone may be sawn as high even as six inches above the first incision of the soft parts,[*] and the extremity of the stump presents the form of a deep conical cavity with the bone at its apex. Larrey[†] operated in the same manner, with the single exception that in the first incision he divided only the skin and subcutaneous tissue which were retracted by an assistant, during the performance of the rest of the operation. Desault[‡] made several circular incisions, dividing the soft parts layer by layer, instead of dividing all by one sweep of the knife.

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[*] Several older surgeons use this expression as applicable to their own operations, but it does not appear that they really attained, or indeed aimed at, anything more than a flat, or at most a slightly concave section of the muscles. Mr. Hey, whose description of his method is nearly identical with that of Larrey, says, in fact, that "the most perfect union of the soft parts would be produced by making an incision through them all in a conical form; but [that] such an incision is impracticable in the ordinary mode of operating, nor is it necessary for the formation of a good stump."—(See Practical Observations in Surgery, &c., by William Hey. 2d Ed., London, 1810, p. 529.)

In this amputation, which as simplified by Dupuytren is extremely rapid and brilliant, the nature of the cure will depend almost wholly upon the height above the first incision at which the bone is sawn. If the conical cavity be made too shallow, or if it become so from subsequent shrinking of the soft parts, the operation will approach in character the very imperfect one of Paré; but if, on the other hand, it be of sufficient depth to admit of the coaptation not only of the skin but also of the muscular sides of the cavity, extensive union may take place by first intention or by the adhesion of the granulating surfaces, and the end of the stump will be well rounded, with the bone deeply buried at its centre. It is highly important to know the measurements which will probably ensure this result. The question has been discussed by Sédillot,[§] who has arrived at the conclusion that the distance between the level of the first incision and that of the section of the bone should be equal at least to three fourths of the diameter of the limb, and may generally be made even greater with advantage. The great danger, particularly in a very long stump, is that the bone will be sawn too low, thus causing much trouble and anxiety in the after-treatment of the case, and ending perhaps in a conical stump. No harm can arise from a redundancy of soft parts, and much evil may result from not saving enough.

The rapid performance of this operation, in the way described, depends, as in the older circular method, upon the lax condition of the subcutaneous and intermuscular areolar tissue; if there has been much inflammation of the limb it will be difficult, if not impossible, to retract the soft parts sufficiently. The principal advantage of this mode of amputating is the facility which it affords for the perfect adaptation to each other, throughout their entire extent, of the cut surfaces both of muscle and of integument; a condition eminently favorable to extensive union by first intention. The sides of the wound are easily brought together, and may be kept in place by a few strips of adhesive plaster, while the deeper muscular surfaces are as easily held in contact with each other by soft compresses placed on opposite sides of the stump and confined by a few turns of a roller. Excellent stumps may be made by this method, which, however, except in the manner of its performance, has less resemblance to the ordinary circular, than to the double-flap operation.

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[*] Dupuytren. Leçons Orales de Clinique Chirurgicale. 2me Ed., Paris, 1839, tom. 2, page [illegible].

[†] Larrey. Memoir on Amputation.

[‡] Desault. Œuvres Chirurgicales, par X. Bichat. Paris, 1796.

[§] Sédillot. Traité de Médecine Opératoire. 2me Ed., Paris, 1853, tome 1, p. 327.

Flap Amputation of the Thigh.

Method with two equal Flaps.—This method was brought forward, at about the same time, by Vermale* and Ravaton.† As performed by the latter surgeon, it is but a modified circular operation, in which no special covering of skin is preserved, and in which the denudation of the bone is effected by means of two longitudinal incisions upon opposite sides of the limb. In its results it closely resembles the operation of Celsus, with the advantage over it that the bone may be largely denuded with much greater ease, and is therefore more likely to be sawn at a sufficient height above the level of the section of the soft parts. Vermale operated by transfixing the thigh with a long knife. thus cutting the flaps from within outwards. The result is substantially the same as in the method of Revaton, but, from the manner of cutting the flaps, they are more or less rounded and thinned at their free extremities, so as to admit of the margins of the skin being drawn together to form a covering for the end of the stump. In this operation the whole muscular substance of the limb is preserved for several inches below the point of section of the bone; the tissues, of which the flaps are formed, lie in their original position, and in most cases readily adhere to each other, forming a round and fleshy stump; the bone does not incline to protrude beyond the soft parts, because the deepest muscular fibres, which are attached immediately to the femur and therefore retract but little, are preserved of nearly the same length as the superficial muscles; and, finally, there are no angles of skin to form "ears," as in the common circular operation.

The double-flap amputation is generally performed in one of two ways—either by transfixing the limb and cutting the flaps from within outwards, or by cutting them from without inwards. In the operation by transfixion, the point of the knife is plunged at once to the bone, with which it should be kept closely in contact as it is pushed onward in its course through the limb.‡ The knife is then carried downwards with a sawing motion, still grazing the bone, until about half the length of the flap has been cut; the edge of the knife is now to be turned obliquely outwards, and the section completed, thus giving to the extremity of the flap a curved outline. The other flap is formed in the same manner. An inexperienced operator may fail to transfix the limb symmetrically—that is, he may not make the knife come out through the skin at a point exactly opposite to that at which it entered. This is a matter of very little con-

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[*] Manheim, 1767. [†] Paris, 1768.

[‡] The object of this direction is to insure the preservation of the deepest muscular fibres, which are of very great importance as a protection for the end of the bone.

sequence, but a beginner may easily guard against it by first marking two dots upon opposite sides of the limb, or he may take the measure of the circumference of the thigh by encircling it equally with the thumb and fore- or middle-finger of both hands, and then allowing the left hand to remain in the same position, as a guide to the knife in the transfixion. Langenbeck* cut both flaps from without inwards, first grasping with the left hand the tissues from which the flap is to be made. In a double-flap operation, described about the beginning of the present century by Professor Nathan Smith,† of Yale College, the form of the flaps was first marked out in ink, using as a guide a piece of paper cut in the form of a semi-circle, whose radius was equal to a fourth of the circumference of the limb at the point selected for the section of the bone. An incision was made in the course of the lines thus marked out, through the integuments first, which were drawn upwards by an assistant, and then obliquely through the muscles. After the soft parts were thus completely divided, the retractor was applied, and the bone sawn as high as possible between the flaps. In this operation the form of the flaps, owing to the tapering of the thigh, is almost exactly the same as in the method by transfixion as just described, but the separate division and retraction of the skin facilitates the coaptation of the soft parts and diminishes the danger of injurious tension upon the sutures. Another, and by no means the least, merit of this operation is the certainty with which it enables an inexperienced operator to make a good stump. In this operation the length of the flaps must depend in some degree upon the range of contractility of the muscles which enter into their formation, or, in other words, the nearer to the knee the amputation is performed the longer should the flaps be cut. As a general rule, the length of the flaps should be equal to three fourths or seven eighths of the diameter of the limb at the point where the bone is to be sawn. Great care should be taken to preserve the whole thickness of the muscles at the base of the flaps, and not to thin them except in the distal half of their length. The operation by transfixion is the most rapid, and is the one generally to be preferred, but there is no objection to either of the other methods. In cutting from within outwards, a little additional skin may be saved by drawing the integuments gently upwards towards the body before cutting them through. The flaps may be held in pretty good contact with each other by strips of adhesive plaster, but it is better, perhaps, to use a few sutures besides. The direction of the flaps may be varied almost indefinitely, and will sometimes be determined by the nature of the injury; as in the case of gun-shot fracture of the femur, in which the flaps should be so planned as not to include in them the tissues lacerated by the ball. As a general rule, however, antero-posterior flaps are to be preferred to lateral ones, for in the latter case the end of the bone is in rather close proximity to the anterior angle of the wound, and may even be made to protrude by the action of the psoas-iliacus muscle flexing the femur upon the pelvis. The sciatic nerve is sometimes seen extending nearly to the extremity of the posterior flap; if this happens to be the case, it should be drawn out of its sheath and divided as high as possible, lest it become engaged in the cicatrix and cause a painful or tender stump.

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* Gottingen, 1820.

† Medical and Surgical Memoirs, by Nathan Smith, M.D. Edited by Nathan R. Smith, M.D. Baltimore, 1831, page 215, et seq.

The double-flap operation may be performed with nearly equal facility in all conditions of the tissues, from the state of perfect health, as in primary amputation for sudden injury, to the firm consolidation of the parts which results from the effusion and organization of inflammatory products. In the latter class of cases, therefore, it offers material advantages over any of the approved circular methods, both in ease and rapidity of performance and in the perfection of the immediate result. The form of the wound is favorable to the exact coaptation of the soft parts, whether we hope for union by first intention or by the adhesion of the granulating surfaces. The vascular connections of the flaps are not disturbed, and their nutrition is therefore more perfect than in the case of a cuff or flaps of integument only. The end of the bone is deeply buried between the flaps, but it does not press upon them, for it is protected by the projection beyond it of the deep muscular fibres. The stump bears neglect and bad usage during the after-treatment remarkably well, and will generally turn out well even in the hands of a very unskilful dresser.

[To be continued.]

PUNCTURED WOUND OF THE BRAIN.

[Communicated for the Boston Medical and Surgical Journal.]

Corporal John B. Buckley, of Co. D, 62d Reg. Pa. Vols.; enlisted May, 1861, at Sewickleyville, Alleghany Co., Penn.; aged 24 years; former occupation a carpenter; dark complexion, brown hair, blue eyes. General health has always been good. Has been, for several years, in the habit of using tobacco; in every other respect very temperate, never having used, to any extent, intoxicating drinks. Was admitted into the Finley General Hospital, May 9th, 1863, with a wound of the head, received the fourth of the same month, in the battle near Chancellorville, Virginia.

The wound, which was in the eyebrow, over the right eye, presented the appearance of having been inflicted with a bayonet, or some other sharp-pointed instrument, and was found, on examination, to have penetrated the skull through the frontal sinus, and to have taken a course horizontally backwards into the brain. I passed a straight bougie along the track of the wound into the right anterior lobe of the brain, the distance of four inches, without force, and without the least pain to the patient. He appeared perfectly conscious, and suffered no pain; pulse natural in frequency and strength, and no heat nor febrile excitement whatever. The perforation in the skull would barely admit the point of the index finger, and there were found a few small fragments of bone, which had been driven in, still hanging at its inner side.

I did not think it prudent to continue the examination further. There was no hæmorrhage. Perfect quietness was strictly enjoined; a saline laxative was ordered to be given, and cold water dressings applied to the wound. The diet to be light and unirritating; and as but little could be done in the way of treatment, and there being not the least hope of saving the patient, it was thought best to leave the case almost wholly to the powers of nature.

The patient himself was decidedly of opinion that his wound was caused by a ball, and not by bayonet, as he confidently affirms he was not in a charge, and the enemy were not very near when he got injured. It might have occurred accidentally from a bayonet in the hands of one of his comrades. On this point I interrogated him a number of times, and he persistently maintained that his injury was from a ball; but this was disproved on dissection.

May 14th.—It is now ten days since the wound was received, and yet he continues conscious and comparatively comfortable, complaining of but little pain or unpleasant feeling in the head. During the last four or five days he has got up several times and walked about the ward with little apparent inconvenience. Is perfectly calm and undisturbed in mind, although he has been informed as to the almost certain fatal termination of his case. The same temporizing treatment to be continued, and quietude to be observed.

May 16th.—For the last two days he has manifested signs of mental disturbance, and the vision of the left eye, as well as that of the right, seemed in a measure lost; and at times optical illusions annoyed and deceived him. More pain in the head complained of, and thirst for cold drinks very urgent. He is allowed to have whatever he desires, and care is given to make him as comfortable as possible. Bowels have been kept soluble by an occasional dose of magnes. sulph., and the water dressings still employed. Some discharge of pus and cerebral substance from the wound.

About noon, to-day, was taken with a tremulous motion of the hands and arms, and reaching after imaginary objects. Complains of more pain in the head when aroused from a partial stupor into which he had fallen. Skin of natural temperature; pulse varying but little from 80 per minute, and of ordinary strength; moderate incoherence of thought and expression; scenes of the battle-field, friends, home and other things, alternately occupy the mind; in short, all the symptoms point unerringly to a speedily fatal termination.

May 17th.—Was comparatively quiet through the night. Pulse 125 a minute, and less resisting; greater tremulousness of the hands and arms; more picking and reaching after imaginary things; stupor increased; thirst still excessive; no appetite for food; vision nearly or quite extinct; discharge of pus and brain substance the same. In the afternoon, slight convulsions took place; the vital forces gradually sinking. He died at 6 o'clock, P.M., with but little apparent suffering.

Sectio Cadaveris, fourteen hours after death. On removing the calvarium, the sinuses of the dura mater and other vessels were found to be highly engorged with blood. The right hemisphere of the cerebrum was sliced off from above downwards. When coming down to near a level with the corpus callosum, a slight prominence over the right lateral ventricle was observed, which, on being punctured, gave vent to a free discharge of pus. By removing another thin slice of brain, the track of the wound was exposed. It was traced from the point of penetration through the anterior lobe, under the right edge of the corpus callosum, opening the right lateral ventricle, and penetrating as far back as the posterior crus of the fornix, which seemed to have sustained injury. This was the extent to which I was able to trace it. The two lateral and the third ventricles were filled with pus; and in making further search for ball, or other foreign substance, as cause of injury, pus was also found in the fourth ventricle, and beneath the cerebellum, around the medulla oblongata. No ball nor other foreign body could be discovered, even after the most diligent search had been made, and the patient must have been mistaken as to the cause of his wound.

This man lived thirteen days after receiving a wound which had penetrated more than half way through one of the hemispheres of the brain from before backwards, the cerebral functions remaining comparatively little disturbed up to within two or three days of his death. As there had been no vessels of any size wounded, and consequently no hæmorrhage in the brain, have we not some small reason for the belief, that, if a free discharge of the pus could have been had immediately after its formation, by a sufficient opening placed dependent, he might possibly have recovered?

Finley Hosp., Washington, D. C. } Lewis Heard, M.D.
May 25, 1863. } *Acting Ass't Surg. U. S. A.*

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

May 11th.—*Abscess of the Kidney.*—Dr. Ellis showed the specimen, which came from a patient who died in the Hospital under the care of Dr. C. E. Ware. She was a widow, 36 years old, who had suffered from pain in the region of the kidneys, with general œdema and swelling of the abdomen, for eight months before her entrance. For three months she had palpitation, dyspnœa, vomiting and pyrosis. She was anæmic; pulse 96. There was a murmur with the first sound of the heart, most audible over the mitral valve. Lungs healthy. Micturition normal. Urine pale, turbid, whitish, very albuminous, containing granular casts, to which oil globules were occasionally adherent. The symptoms steadily increased, and the patient died about five months after her entrance into the hospital.

At the autopsy the lungs were found to be extremely œdematous. The pericardium contained more than a pint of serum. The surface of the heart, and portions of the parietal portion of the pericardium, were covered with a fibrinous formation, which in some places was two lines in thickness, and which could be easily raised from the subjacent surface. The orifice of the mitral valve was somewhat narrower than usual. The right kidney was of the usual size. Its cortical substance was extremely pale, and dotted by many opaque, yellowish-white points. On microscopic examination, the few tubuli seen appeared larger than usual, and were lined with well-defined epithelium.

The left kidney was enormously dilated, forming a sac which was subdivided into two principal cavities, between which no communication was found, but they appeared to represent the pelvis of the organ. Arising from them were large, shallow pouches, largely open, and limited by a smooth projecting lip; these were undoubtedly the dilated calices. The inner surface of the superior cavity and pouches was white and smooth; but that of the lower was quite rough and uneven. In the lower part of the latter was a calculus, about three inches in length and two-thirds of an inch in diameter in the middle, from which it gradually diminished in size towards the extremities. It was covered with a smooth, shining and very brittle layer, which resembled a coat of varnish. An examination of it by Dr. White gave the following result:—

The interior of the mass was very loose and friable, and was composed of carbonate of lime, phosphate of lime, and triple phosphate of ammonia and magnesia, mixed with organic tissue and well-formed animal cells. The outer portion or covering consisted of thin, membranous layers of an albuminous or fibrinous character, filled with the above salts, the whole forming a remarkable nacreous glazing or coating to the whole calculus.

The dilated kidney was about eight inches in length. No normal renal substance was seen, it having been converted into a dense, fibrous-looking tissue. No ureter was found.

Connected with the upper cavity, by a large opening, was a large abscess in the cellular tissue beneath it, with rough, irregular walls. The two cavities contained about two pints of pus, and lying beneath the periosteum, raised that membrane, from the diaphragm to the brim of the pelvis. The upper cavity also communicated, by a free opening in its posterior wall, with the sigmoid flexure of the colon, which likewise contained a large quantity of pus.

May 11th.—*Malignant Disease of the Humerus.*—Dr. Townsend exhibited an arm which he had removed at the shoulder, and gave the following account of the case:—

"In March, 1862, I was requested to visit, in Roxbury, a boy four years of age, who had a tumor situated at the lower part of the biceps muscle of the right arm. It was then about the size of a hen's egg. I learned from the parents, that in September, 1860, he had a fall, injuring the arm. The swelling appeared a month afterwards, and when first noticed it was of the size of a hazel-nut. He had, previously to my visit, been seen by the principal surgeons of this city. The tumor was noduled, with numerous large veins spread over it and in its vicinity. It was not painful. An unfavorable prognosis was given, and the opinion expressed that nothing but amputation would arrest the disease. This coincided with the opinion given by the other surgeons. Previously, however, to my seeing him, the child had been taken to New York, and the three leading surgeons of that city consulted, the elder of whom gave a decidedly unfavorable prognosis in the case. One of them flattered the parents with the opinion that it was scrofulous and would disappear, but, at a subsequent consultation, advised tying the artery, and finally, in the last stage of the disease, recommended amputation as the only alternative. The parents afterwards consulted most of the homœopaths of Boston and vicinity, some of whom promised a cure, and at one time, while waiting for the return of one of the latter to his office, he was carried to a noted bonesetter and rubber, who was allowed to see the disease only, but not to touch it. An Electrician was also consulted, but as the battery proved injurious, he advised the application of a poultice, which was continued for two months.

"After an absence of several months in the country, I saw the child again, in December last, and found the tumor very much enlarged and extending towards the shoulder. Amputation was again recommended, but the advice would not be listened to. On the 27th of April last I saw the child again, when I found the tumor measuring fifteen inches in circumference. After a consultation with Drs. Bigelow and Gay, the parents consented, on the first of the present month, to have the limb removed. The father came to the conclusion, after his large experience in this case, 'that it was safer to trust himself in the hands of science rather than of pretension.'

"In performing the operation (amputation at the shoulder-joint), I found it necessary to arrange the flap so as to avoid the cluster of enlarged veins on the front and side of the upper part of the arm. At the suggestion of Dr. Gay, the posterior flap was seized by a pair of polypus forceps before the artery was divided. Only the skin from the deltoid was used, the muscle itself being filled with the disease. The child is doing well."

Dr. Hodges gave the following account of the dissection of the tumor. The tumor, lobulated and of uniform density, extended from the elbow to the shoulder, involving the entire arm, which was about equally enlarged on all sides. In its upper half, and on the inside, the integument was dissected off with facility; in the lower half of the outside it was blended with the disease, and though unchanged in its external appearance, could not be stripped from the lobules to which it had become adherent. The muscles were in part expanded on the tumor, and in part lost in it. The nerves of the brachial plexus were widely separated from each other, and after entering the tumor also became lost in the disease. The axillary vein was stuffed with the disease for a distance of two and a half inches after it left the tumor.

On section the structure was shown to be a homogeneous, lobulated mass, in density and color not unlike the fat of pork. The shaft of the humerus was thickened and its surface covered with a fine stalactitic growth, radiating into the tumor. At one point, and that near the elbow, the osseous tissue was destroyed, and for a distance of three quarters of an inch replaced by a vascular and marrow-like deposit. The entire shaft was implicated in the disease, and the appearances near the neck of the bone seemed to indicate that the growth had originated in the periosteum.

MAY 25th.—*Fœtus with Protrusion of the Membranes of the Brain, Transposition of Viscera, Malformation of the Throat and encysted Disease of the Kidneys.*—Dr. JEFFRIES WYMAN showed the specimen, and gave the following description of it :—

"This fœtus was presented by Dr. R. E. Hodgdon, of West Cambridge, who was the attending physician at the time of birth. The body was thirteen inches in length, and outwardly exhibited the following anomalies, viz. : an additional finger on the ulnar side of each hand, and a toe on the fibular side of each foot ; the ears, nose and the mouth had the deformity usually seen in anencephalous fœtuses ; the head was about one half the usual size, the cranium was much flattened, and at the hinder fontanelle, through an opening nearly an inch in diameter, protruded the membranes of the brain ; these had torn and ragged edges, were infiltrated with coagulated blood, and had the appearance of having formed portions of a ruptured sac ; the integuments did not extend beyond the borders of the opening, the torn membranes being covered with a serous surface. The conditions are those of an anencephalous fœtus (spina bifida of the head), the brain, however, being only partially arrested in its development.

"The palate was fissured from its middle, backwards, the uvula being on the left side of the fissure, and bi-lobed. The following viscera were transposed : the aorta arched to the right side ; the innominata artery arose from the left of the arch, and to the right of it arose separately the right carotid and subclavian ; the great cul-de-sac of the stomach was on the right, and the pylorus on the left side ; the large lobe of the liver, with the gall-bladder and umbilical vein, were on the left of the middle line ; the duodenum did not pass through the transverse mesocolon, this being attached quite low down in the cavity of the abdomen, so that the whole of the small intestine was above it ; the cœcum was on the left side, but not so closely held in place as is usual when in its normal position ; the descending colon and the sigmoid flexure were on the right side. There was no omentum, and after a very careful search, no spleen was found.

"The heart, the apex of which had the usual direction, offered the following anomalies : the base of the aorta presented forwards, and behind it was the pulmonary artery, as if the heart had been twisted on itself through half a circle : the pulmonary artery divided into two branches of large size, but there was no ductus arteriosus ; the foramen ovale was largely open, and there was no outlet from the venous auricle except through this foramen, and through this all the blood of both the upper and lower cavæ passed from the venous to the arterial side of the heart. The auriculo-ventricular orifice and valves on the arterial side of the heart were normal, and connected with a ventricle from which arose both aorta and pulmonary artery—the former normally, except that its position was too far forwards, and the latter by a more contracted and fleshy opening, behind and a little to the right of that of the aorta.

"The right or venous ventricle seemed to be wholly wanting, unless a small cavity in the ventricular walls, and connecting with the venous auricle, could be considered as such. When there is merely a deficiency of the ventricular septum, the two auricles open separately into a common ventricle. In the present instance, the only outlet from the venous auricle was through the foramen ovale.

"The kidneys were slightly enlarged and almost wholly transformed into cysts, with only a trace of normal structure.

"The renal capsules were larger than is usual in the anencephalous condition, but smaller than in the normal state. No anomaly is more constant than the coexistence of imperfection of the renal capsules with the condition of the brain just mentioned; if this is complete, or is carried to excess, they are at the minimum of development. The specimen here described is interesting from the fact that the brain is only partially involved, and that the capsules are affected to a corresponding degree."

A malformation in some respects resembling the one here noticed, is described by Dr. J. B. S. Jackson in the printed Records of the Society, Vol. I., p. 66.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JUNE 11, 1863.

FOURTEENTH ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION. —Through the kindness of Dr. J. C. Dalton, of this city, we are enabled to furnish an abstract of the proceedings of the Association, taken from the reports published in the *Chicago Tribune.* The attendance was large, and comprised delegates from sixteen States and from the Army and Navy. The following were the delegates from Massachusetts: Henry Cutter, Appleton Howe, Edward Barton, James P. Lynde, Ebenezer Stone, P. J. Kendall, B. E. Cotting, John Homans, John C. Dalton, M. D. Southwick, E. P. Abbe, John Green.

The opening session was presided over by the First Vice President, Dr. Wilson Jewell, of Penn. The Chairman of the Committee of Arrangements, Dr. N. S. Davis, welcomed the members to the city of Chicago, and presented a report, explaining why no regular meeting had been held since 1860. The report was adopted. The following programme of exercises was announced.

General Session, from 9 o'clock, A.M., to 1 o'clock, P.M. Afternoon Session, in Sections, from 3 o'clock, P.M., to 6, P.M., in rooms as follows:

Section on Surgery, in Bryan Hall.

Section on Practical Medicine and Obstetrics, in Bryan Hall No. 2.

Section on Anatomy and Physiology, in Methodist Church Block, 3d floor.

Section on Chemistry and Materia Medica, in the Methodist Church Block, 4th floor.

Section on Meteorology, Medical Topography, Epidemic Diseases, Medical Jurisprudence and Hygiene, in Methodist Church Block, 3d floor.

A recess of ten minutes was announced by the Chair, to enable the delegates to select from their number nominating delegates: after which the retiring acting President, Willson Jewell, of Pa., 1st Vice President, delivered his valedictory, which was an able, patriotic and scientific address. On motion of Dr. Sprague, of New York, the thanks of the Convention were tendered for the address, and a copy requested for publication.

AFTERNOON SESSION.—Dr. Haswell, of Delaware, read the Treasurer's Report, recommending that only papers of the greatest importance should be published in the transactions, owing to the increased expense of printing and publishing. Expended since last meeting, $2,579.86. Balance on hand, $504.21. He also read the report of the Committee on Publication, which was accepted.

Dr. Griscom, of New York, read an account of a remarkable case of diarrhœa adiposa, which has no parallel in medical records.

Dr. D. L. McGugin, of Iowa, from the Committee on Prize Essays, reported an Essay entitled, "An Inquiry into the Physiological and Medicinal Properties of the Veratrum Viride, together with some Physiological and Chemical Observations upon the Alkaloid Veratria obtained from this and other species, by Samuel R. Percy, M.D., Prof. of Materia Medica and Therapeutics, New York Medical College. After commendatory remarks from several members, the Essay was decided to be worthy of publication in the Transactions, and also entitled to the prize—$100—and it was thus received and disposed of.

The Committee on Nominations reported that they had nominated the following, who were subsequently elected as the officers for the ensuing year:—

President—Dr. Alden March, of New York.

Vice Presidents—Drs. James Cooper of Delaware, David Prince of Illinois, C. C. Cox of Maryland, and E. S. Carr of Wisconsin.

Treasurer—Dr. Caspar Wister, of Philadelphia.

The election of Secretaries was deferred till the place of the next meeting was decided upon.

The newly-elected officers were conducted to their respective positions.

Reports were called for from committees. Dr. D. L. McGugin, of Iowa, Dr. C. C. Cox, of Maryland, made verbal reports, and were continued on committees. Dr. Davis read a communication from Dr. Squibb, of N. York, of the Committee on Practical Workings of the U. S. Law relating to the Inspection of Drugs and Medicines. He was unable to report—continued. Dr. A. K. Gardner's paper "On the Use and Abuse of Pessaries" was presented, and the reading postponed till Wednesday morning. Dr. C. C. Cox, of Maryland, asked and was granted a few weeks to complete his report on "American Medical Necrology"; also continued on same committee for another year.

A letter from Dr. H. I. Bowditch, of Boston, was read, announcing the receipt of [illegible] towards the Hunter Memorial, with a list of officers and agents, and on motion the Committee were instructed to forward the amount of funds on hand, and to close the account.

On motion of Dr. Lawson, of Ohio,

Resolved, That a committee of one from each State represented in this Association be appointed to inquire into the recent order issued by the Surgeon-General of the United States Army, in which the further supply of calomel and antimony is prohibited, and to report at as early a period as convenient during the session of the Association. Adopted.

Dr. Arnold, of New York, submitted to the Convention his pamphlet on "Medical Provision for Railroads as a Humanitarian Measure, as well as a source of economy to the Companies." Copies of this work (which embraces an account of all that has been accomplished by the profession to the present time) were presented to the members, with the request that, after being read, the subject be brought up for discussion at some period of this session.

Dr. C. C. Cox, of Maryland, offered the following resolutions, with an appropriate introduction, which, after endorsing remarks from several members, were adopted unanimously:—

Resolved, That a committee of five be appointed by the Chair to draft a memorial to Congress, asking the enactment of a law by which surgeons in the service of the United States Army may be accorded relative rank in the same.

Resolved, That each medical gentleman present be urgently invited to use every proper influence with the member of Congress from his own district, to urge the passage of a law, at the coming session of Congress, favorable to this object.

The Association adjourned to 9, A.M., Wednesday.

WEDNESDAY MORNING SESSION.—A large number of additional members from several States were announced as having arrived and registered their names as delegates, including a large number of the physicians and surgeons of Chicago.

The reports of committees being in order, on motion, that of the Committee on Medical Education was postponed until the afternoon session.

The Committee on Appointments made their report, which, on motion, was accepted. Pending its adoption, it proposing Baltimore, Maryland, as the next place of meeting, considerable discussion arose, various members proposing different places. The member from Maryland advocated the feasibility of appointing the next meeting at Baltimore, as a national measure. It is for the interest of the Association and the country to hold the meeting *as far South as possible.* The effect of holding it at Baltimore would be a healthy one upon that city and its medical interests. Men of wealth and influence would open their doors and extend warm hospitality to the members of the Association. The question finally resolving itself into a choice between Baltimore and New York city, the latter was unanimously voted for as the place for holding the next meeting.

The balance of the report, concerning the officers of the next meeting, committees, etc., was referred back to the committee for reconstruction, rendered necessary by the substitution of New York for Baltimore.

On motion, a committee, consisting of one member from each State, was appointed to investigate and report upon the present, and a better ambulance system in the army of the United States.

A resolution of thanks to Dr. Wilson Jewell, late acting President, for the able and dignified manner in which he has presided over the deliberations of the Association, was unanimously adopted.

A resolution, requiring the appointment of a committee to urge the compulsory vaccination of every person in the United States, was referred to the section on Hygiene.

The report of Dr. A. K. Gardner, of New York, regarding the use and abuse of pessaries, the reading of which was yesterday postponed until this morning, was called up, as next in order, and on motion, the reading of it postponed until next year.

The Committee appointed to prepare suitable resolutions appropriate to the loss of the Association by the death of its late President, the late Dr. Eli Ives, of Connecticut, made their report, which, after a slight amendment, was adopted.

The Committee on Voluntary Communications presented an abstract of a paper by Dr. Andrews, of Chicago, on "Diatheses—Their Surgical Relations," which was read by the author. Approved, and referred to the Committee of Publication.

The meetings of Sections having been abolished, the President appointed as the Committee on Compulsory Vaccination, which had previously been referred to the Section on Hygiene, Drs. Hibbard, of Indiana; Jewell, of Pennsylvania, and Griscom, of New York. The meeting then adjourned until afternoon.

AFTERNOON SESSION.—According to a resolution passed this morning, Dr. D. J. Macgowan, of New York, from China and Japan, was invited to address the Association. He explained to the meeting the professional bearings of his proposed scientific and industrial expedition to the unknown parts of Eastern Asia. Investigation in relation to the history of epidemics, into the materia medica, and into the ethnology of those lands, cannot fail to elicit many facts which promise to be of incalculable value to medicine and the collateral sciences. Dr. M. further expressed a hope that the Association would take some measures to induce the Haytien Government to undertake the acclimitization of Cinchona trees (quinine plants). He gave an account of the success of the Dutch in Java, and of the English in India, and fully believes that in St. Domingo these invaluable plants might be readily cultivated, and thus secure additional supplies of this great remedy in fevers.

Dr. Macgowan has been in correspondence with the Haytien Ambassador in Washington, on the subject, and solicits the influence of the profession, in urging the institution of the necessary experiments in those portions of America north of the equator where the soil and climate seem to afford sufficient encouragement.

In the course of his remarks, the speaker gave an account of the standing of the medical profession in China and Japan, of their medical literature, &c.; also stated the remarkable facts that they have made many discoveries in the use of remedies for certain diseases, in some cases either actually the same or very similar to those discovered and used here.

Dr. C. C. Cox, from the Committee on Medical Education, read an able, scientific paper on the subject, reviewing the past history of the profession in this respect, and the absence of proper attention to the subject. Many valuable suggestions as to needed improvements were also made. After the rendering of this report the Committee submitted the following resolutions, which, after discussion, were adopted:—

Resolved, That a thorough preliminary education in English, Latin, mathematics and physics, constitutes an essential prerequisite to the admission of a student of medicine into the office of a medical preceptor, or as matriculant of a respectable medical College.

Resolved, That the advancement of medical education demands a more extended and systematical course of instruction in the colleges, and a more thorough and impartial examination for the degree of Doctor of Medicine than at present prevail.

Resolved, That Medical Jurisprudence and Hygiene are highly important branches of medical science, deserving the careful consideration of all medical teachers and schools.

Resolved, That all societies for medical improvement—State, District and County—are important auxiliaries to the advancement and promotion of science, and are therefore highly recommended by this body, as valuable levers in the cause of medical education.

The Committee appointed to make a report upon the recent order of the Surgeon-General, prohibiting the use of mercurials and tartarized antimony by the Army Surgical Corps, made a majority report through Dr. Lawson, of Cincinnati, and an entirely antagonistic minority report by Dr. Woodworth, of Indiana. The former strongly favored the use of these remedial agents in the army, and the latter as strongly discountenanced their use there.

The above comprises the first two day's proceedings—all that has been received up to the time of going to press.

Annual Meeting of the Massachusetts Medical Society.—We trust that our readers in this eastern portion of the State will not forget the meeting at Pittsfield, on Wednesday next, and will not neglect this opportunity of returning the repeated visits made to us of late on similar occasions by our professional brothers beyond the Connecticut. Without considering the importance of sustaining the State Society, certainly no pleasanter excursion could be arranged, even by Perham, than a ride at this lovely season of the year from Massachusetts Bay to the extreme western limit of our State. Few who have not visited it, have any true idea of the rugged and diversified character of the glorious highland region of the Berkshire Hills, in the very centre of which, upon the banks of the Housatonic, Pittsfield is seated. The managers of the various railroads leading thither have generously agreed to furnish a return ticket gratis to all members of the Massachusetts Medical Society who exhibit a certificate that they have attended the meeting; so that the matter of expense can hardly stand in the way of the youngest practitioner's attendance. The annual discourse will be delivered by Dr. Morrill Wyman, of Cambridge; and Dr Henry H. Childs, of Pittsfield, will preside at the dinner, which will be provided by the Berkshire District Society, and will no doubt be a satisfactory specimen of Berkshire hospitality.

The following gentlemen compose the Committee of Arrangements:—Drs. Clarkson T. Collins, Chairman, Great Barrington; C. C. Holcomb, Lee; J. L. Miller, Pittsfield; A. M. Smith, do.; W. W. Green, do.; Geo. C. Lawrence, North Adams; F. A. Cady, Pittsfield. They would feel greatly obliged to gentlemen intending to be present to inform them previously, so that ample accommodation could be furnished.

Councillors will bear in mind the meeting to be held at the Berkshire Hotel on Tuesday evening.

RESIGNATION OF DR. BACON.—We regret to learn that Prof. Bacon has been obliged, on account of ill health, to resign the position of Chemist to the Massachusetts General Hospital, which he has held for a period of nearly twelve years. Few are aware of the true nature or extent of the services he has so quietly performed during this time. The visiting physician or surgeon generously gives an hour or two of his day, for four months in the year, to the Hospital; but he goes away from his visit each day a more experienced man, and with the happy consciousness of having directly relieved human suffering; he knows, too, that hundreds of persons leave the Institution each year bearing him in grateful remembrance, and that the associations formed between himself and the students he meets there are reciprocally beneficial. No such pleasant recompense, however, attaches itself to the labors of the chemist. Dr. Bacon has undoubtedly devoted more hours of labor to the Hospital during his connection with it than any of the visiting physicians and surgeons for the same length of time—hours, too, spent in solitary, monotonous labors, which could scarcely be of any benefit to himself. We make this comparison solely for the purpose of placing his services, which can be properly appreciated only by those whom his labors have aided in diagnosis, in their proper light. The trustees and friends of the Hospital must certainly feel grateful for having for so long a period had the benefit of the gratuitous and important services of a gentleman so distinguished in medical chemistry. We trust that he may soon regain his health, and long continue to occupy his present professorship in the University.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JUNE 6th, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - - -	28	30	58
Ave. mortality of corresponding weeks for ten years, 1853—1863,	37.4	32.5	69.9
Average corrected to increased population - - - -	00	00	76.95
Death of persons above 90 - - - - - - - -	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
9	3	5	2	1	0	1	3

COMMUNICATIONS.—Papers have been received from Dr. H. R. Storer, Dr. Cady of Pittsfield, and Dr. Nourse of Bath, Me.

MARRIED,—In Melrose, June 4, Joseph Robbins, M.D., of Quincy, Ill., to Miss Louisa A. Norris, of Melrose.

DIED,—In camp, near Falmouth, Va., Neil K. Gunn, M.D., Assistant Surgeon of the 1st Mass. Reg't. The deceased belonged to Inverness, Cape Breton, and graduated at the Mass. Medical College in March last, having been in the service only about two months at the time of his death.

DEATHS IN BOSTON for the week ending Saturday noon, June 6th, 58. Males, 28—Females, 30.—Abscess of liver, 1—accident, 1—apoplexy, 2—inflammation of the bowels, 1—congestion of the brain, 1—bronchitis, 1—burns, 1—cancer, 1—consumption, 9—convulsions, 1—croup, 3—diphtheria, 3—dropsy of the brain, 2—scarlet fever, 5—typhoid fever, 1—gastritis, 1—disease of the heart, 3—intemperance, 1—intussusception, 2—inflammation of the lungs, 2—marasmus, 2—measles, 1—pharyngitis, 1—pleurisy, 1—premature birth, 1—pulmonary apoplexy, 1—smallpox, 1—teething, 1—thrush, 1—unknown, 5—whooping cough, 1.

Under 5 years of age, 21—between 5 and 20 years, 3—between 20 and 40 years, 18—between 40 and 60 years, 6—above 60 years, 7. Born in the United States, 40—Ireland, 14—other places, 4.

THE

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CASE OF OVARIOTOMY.

By Gilman Kimball, M.D., Lowell, Mass.

[Communicated for the Boston Medical and Surgical Journal.]

Miss O., of Cuttingsville, Vt., a young lady 18 years of age, of rather delicate habit, but usually enjoying good health, applied to me in August last for advice in reference to an ovarian tumor, with which she had been afflicted for the two years previous.

The disease was first noticed as a small movable lump in the left iliac region, rather painful, especially upon handling, and to some extent affecting her general health. During the first eighteen months it increased very slowly, and was scarcely observable through her dress. Six weeks previously to my seeing her, she had consulted Dr. Phelps, of Windsor, Vt., the tumor then being of a size to suggest the idea of the last period of pregnancy. Upon examination, however, it was at once recognized as ovarian—partly cystiform and partly solid.

To relieve present suffering from distension, as well as other symptoms incident to the large size of the tumor, tapping was resorted to at once, and six quarts of yellowish albuminous fluid drawn off from a single cyst.

At the time she came under my charge, the tumor had already attained nearly its original size, and was attended with a still more marked evidence of its impression upon the general health. This was shown by loss of strength, emaciation and a slight cough.

The question of removal of the disease by an operation had been already considered in her consultation with Dr. Phelps. Concurring with his favorable opinion as to its expediency, and in pursuance of the strong desire of the patient herself, this only alternative for relief was finally adopted.

The operation was performed in August. The patient having been put under the influence of ether, the first procedure was simply explorative, consisting of an incision through the parietes in the median line, directly over the most prominent part of the tumor, merely large enough to admit of the passing an instrument (a silver male catheter I find the best) to ascertain if there were adhesions. Finding the tumor apparently free in this respect, the incision was now extended upwards nearly to the sternum, and downwards almost to the pubes, thus making an opening much larger than I should have considered necessary but for the large size of the solid mass to be removed. In the course of this part of the operation, the bulk of the tumor had been considerably diminished by opening a cyst, from which there escaped four quarts of fluid, similar in character to that which had been previously drawn away by the first tapping. The cavity of the abdomen being freely exposed, I was surprised to find that the omentum had formed a loose vascular attachment to the tumor, and was so spread out as to embrace nearly its entire surface. I was also surprised to notice, for the first time in my experience in this operation, the omentum, as well as the peritoneum lining the abdominal parietes and the pelvic cavity, studded with an infinite number of distinct and regularly-formed tubercles. Free of attachments, other than what has just been named, the tumor was readily dislodged from its position, and detached from its omental connection without the use of the knife. The hæmorrhage, however, that followed in consequence, was profuse, several of the larger bleeding vessels requiring to be immediately ligated. The pedicle, two inches in width, stout and fleshy, was severed as near to the tumor as possible, having been first transfixed through its centre by a double ligature of iron wire, and each half of it tied separately, and finally the whole stump embraced in another ligature of the same material. Bleeding still continuing from the numberless recently-torn vessels of the omentum, an attempt was made to control it by touching the bleeding points with a solution of the persulphate of iron. After repeating the application of this powerful styptic from time to time, for more than an hour, the hæmorrhage was apparently subdued, and the omentum replaced in the abdomen. The wound was now closed with silk sutures and adhesive straps, the stump of the pedicle being first drawn out and secured between its lips.

To the difficulties that had already rendered the operation tediously prolonged, and exhausting to the patient, another most unexpectedly arose, which came very near proving fatal. A few minutes only had elapsed after the dressings had been completed, when it was observed that the lower point of the incision was giving issue to an undue amount of bloody serum, a circumstance alarmingly significant of bleeding within. Plasters and stitches were speedily removed, and the abdomen again laid open, bringing to view a large quantity of blood, mostly coagulated, filling up the pelvic spaces and extending upwards to a considerable distance among the small intestines.

The bleeding was now more profuse than ever, and apparently from the same source as at first. The patient was also evidently sinking from exhaustion, and the only alternative that seemed to offer any chance of preventing its proving speedily fatal, was the complete removal of the omentum itself. This was accordingly done without delay, first embracing it in a stout ligature of silk near its root, leaving a stump about two inches in length. In clearing away the effused blood, the coagulated portion of it was removed by the hand; the remainder taken up by soft sponges and cloths carefully crowded into the various spaces in which it was found insinuated, both in the abdomen and pelvis. The wound was now closed again as before, the stump of the severed omentum being first brought out at one point, and the pedicle of the tumor at another, and both secured to the integuments by silk sutures. Adhesive straps, and cloths moistened with warm water medicated with laudanum, laid over the wound, completed the dressing.

Of the subsequent history of this case, there remains but little to be said. Upon returning to consciousness from the effects of ether, the patient complained of great pain in the abdomen; but this was effectually relieved by a liberal dose of morphine, so that she soon fell into a quiet sleep, from which she awoke refreshed and cheerful. From this time onward, till her complete recovery, not a single unfavorable symptom occurred—no pain, no suffering of any kind—nothing, indeed, in point of severity, local or constitutional, to distinguish the case from the simplest form of incised wound.

The treatment during the period of recovery was almost entirely negative:—water dressings to the wound; occasional small doses of morphine at night, merely for the purpose of inducing sleep; but no substantial nutriment of any kind for a fortnight. For the first five days, cold water only was permitted, and that in quantities not exceeding a small teaspoonful. The bowels were kept undisturbed for the first fifteen days, and were then relieved by an enema of simple warm water.

Twenty days after the operation, the patient left my charge, to visit her sister some twenty miles distant; and a few weeks after, she returned to her home in Vermont. Since then, she reports herself from time to time as in good health, restored in flesh and strength, and entirely relieved of her cough—indeed, in all respects better than she has been for several years past.

This case, considered merely as an instance of the successful removal of an ovarian tumor, would scarcely be entitled to special notice. In that view, it would only be reckoned as adding numerically to the already largely-accumulated facts establishing the propriety of an operation, which, though still denounced by a few, is now well nigh regarded by the profession at large quite as legitimate as any other within the range of operative surgery. Differing, however, as it does in several respects, from those of ordinary occurrence, and especially as regards any other that has ever fallen under my own care or observation, I have not hesitated to submit a report of it for publication.

The operation was undertaken under circumstances seemingly favorable for success. The condition of the patient as to general health was apparently good—excepting, of course, the slight cough, which, as has been not unfrequently noticed in similar instances, was in this case, also, attributed rather to the presence of the tumor, acting as a mechanical cause, than to any positively morbid condition of the lungs. Still further, the unusual mobility of the tumor, as well as the preliminary exploration, gave satisfactory assurance, that, as regards adhesions (ordinarily one of the chief obstacles to success), there would probably be no serious difficulty. The embarrassing complications, however, revealed in the course of the operation, especially the remarkable development of tubercles, the unusual enlargement of the omentum, and its extensive connection with the tumor; the hæmorrhage following its detachment, and the plan adopted for controlling it; and, finally, the rapid and apparently complete recovery, in spite of so many adverse circumstances, seem to render the case one of more than ordinary interest, not merely in its relation to ovariotomy, but in its incidental bearing upon other operations, less important perhaps, but not unfrequently demanding surgical attention.

The existence of adhesions, here noticed, affords a striking illustration of the difficulty, not to say the absolute impossibility, of determining beforehand this important point in diagnosis. The same may be said, also, in regard to the presence of tubercles—a condition of rare occurrence under any circumstances, in this case entirely unlooked for, and, in its relations to diagnosis, one that had shown no symptoms, rational or physical, by which it could have been detected.

The chief point of interest furnished by the first of these difficulties, viz., the adhesions, practically considered, consists in the plan adopted for arresting the hæmorrhage consequent upon breaking up the connection between the omentum and the tumor. Seeing that styptics and ligatures had failed, the case demanded prompt and effectual action; and to this end, the plan pursued proved, in all respects, perfectly successful, rescuing at once the patient from imminent peril, and, so far as bleeding was concerned, rendering her condition entirely safe as to all future danger. Under similar circumstances I should adopt the same practice, and without hesitation.

Another point of important practical value is here illustrated, and that is, that the peritoneum, usually the most important tissue involved in this, as well as in every other form of abdominal section, is by no means so susceptible of inflammation as has been generally supposed. Taken in connection with a very large number of other cases where the lesion of the peritoneum is shown to have been even more extensive than in this, it affords very strong, additional proof, that its tendency to take on inflammatory action is comparatively slight; moreover, that the direct injuries it necessarily sustains in the ordinary operations of ovariotomy are not to be reckoned among the most serious obstacles to successful results. There are other circumstances to be taken into account, which I deem of more importance. As among the most essential of these, I will here allude to one which I have more frequently met with than any other.

In a large proportion of cases of ovariotomy, it happens that in spite of the utmost precaution on the part of the operator, upon dislodging the tumor from its position in the abdomen, there is found to have escaped into the peritoneal cavity, a greater or less amount of fluid; sometimes from a ruptured cyst, sometimes from bleeding vessels, and not unfrequently from both. However harmless this fluid may chance to be in itself, if retained, it will hardly fail to cause mischief; and more especially, if there should happen to be added to it the decidedly irritating discharge resulting from the sloughing stump of the pedicle. That this difficulty, with its consequences, can always be entirely avoided or controlled, I know is impossible; yet I am forced to believe, both from what I have myself observed as well as from what I have incidentally learned from other sources, that in not a few instances, from want of proper attention to this single point, fatal results have followed. And this belief has been the more fully impressed upon my mind, in view of the successful results of two consecutive cases recently occurring in my own practice, where the operation was rendered peculiarly embarrassing from the large amount of fluid escaping from ruptured cysts and torn bloodvessels, and finding its way in various directions among the viscera both of the abdomen and pelvis. The absence of all signs of inflammation or other trouble in the course of the rapid recovery in both these cases, was owing, as I am disposed to believe, in no small degree, to the careful and thorough removal of this special, and, I fear, too commonly-neglected cause of mischief.

As regards the tubercular condition already alluded to, it was a complication, as before stated, such as I had never before met with, and in this case not even suspected; and although the result of the operation proved it to have been of no serious importance, the mere apprehension of its existence might have been deemed a good reason for withholding all surgical interference. It seems to have been an example of a class of cases in which, according to the observation, probably, of every experienced surgeon, a cachectic condition of the system suddenly makes its appearance upon the rapid development of some serious local malady; illustrating, also, the important practical fact, that the early removal of the local disease, with the view of restraining, and possibly of even curing the constitutional affection, has not unfrequently proved a judicious, and even life-saving practice.

Having already alluded to the negative course of treatment adopted in this case, it may be proper here to remark, that in my earlier operations of this kind, I was in the habit of administering to my patients large and frequent doses of opium; not merely with a view to its anodyne effects, but with special reference to its supposed efficacy in controlling inflammation. From my experience in more recent cases, however, I have come to the conclusion that whatever remedial value it may possess in the treatment of certain other forms of peritonitis, in that of traumatic origin it has no special power.

Of the advantages of the *clamp* over the usual method of securing the pedicle by ligature, I have no experience. In certain cases where I had purposed using it, the pedicle was found too short to admit of its application. Adopting it under favorable circumstances, I should expect to secure a more speedy healing of the outside wound; but beyond this, I see no reason for preferring it to the ligature, as described in the foregoing case.

ON AMPUTATION OF THE THIGH.

By John Green, Fellow of the Massachusetts Medical Society, late Acting Assistant Surgeon U.S.A.

[Continued from page 380.]

Flap Amputation of the Thigh performed with a Single Flap, or with two Unequal Flaps.

Method with a single Flap.—This method, invented by Lowdham[*] about the middle of the seventeenth century, was at first employed chiefly in amputation of the leg. As performed in the thigh it is well described by Benjamin Bell,[†] who, however, did not often employ it; by William Hey[‡] and Charles Bell,[§] who advised it in certain exceptional cases, and by Sédillot,[||] who adopts it as the regular operation, cutting the flap from the front of the limb. This method may be employed with advantage when the disease or injury for which we amputate has destroyed the tissues upon one side of the limb, leaving enough sound material to form a flap upon the opposite side; we may thus, in injuries by shell or by cannon-shot, occasionally preserve a much longer stump than could be made by a more symmetrical operation, a result which is often of very great importance in fitting and using an artificial limb.

The operation may be performed either by transfixion or by cutting from without inwards. The flap should be cut rather thin, in order that it may be easily bent over the face of the stump, and it must be large enough to cover the whole cut surface without stretching; in length and in breadth it should somewhat exceed the diameter of the limb at the point where the bone is to be sawn. After cutting the flap it is lifted up, and the section of the soft parts is completed by a single circular sweep of the knife. The attachments of the bone at the linea aspera should then be divided, the retractor applied, and the femur sawn an inch or two above the transverse section of the muscles.* Care must be taken not to include any large vessel or nerve in the thickness of the flap, else there will be danger, in the former case, of secondary hæmorrhage, or, in the latter, of a painful or tender stump. In dressing the wound, the flap should be folded neatly over the end of the stump and retained in its place by a few sutures, aided by strips of adhesive plaster.

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[*] Yonge. Cursus Triumphalis, &c., quoted by various authors.

[†] Benj. Bell. Op. cit. Vol. vi., page 398 et seq.

[‡] William Hey. Op. cit. Page 531 et seq.

[§] Charles Bell. Illustrations of the great operations of surgery. London. 1821. Pages 66 and 67.

[||] Sédillot. Op. cit. Tome i., page 455 et seq.

The single-flap operation, when performed in this manner, does not differ materially in principle from the common circular method; the chief difference consists in the form given to the covering of integument, by which the cicatrix is made to fall upon one side of the axis of the limb, where it is, perhaps, more in the way of pressure and of accidental injury than if it were central.

Method with two unequal Flaps.—The denudation of the bone in the last operation may be effected also by slitting up the soft parts for a couple of inches, thus lengthening the principal flap, and forming a second shorter flap upon the opposite side of the limb. For this purpose it is not necessary to make a separate incision, for we need only transfix the limb at a higher point and cut the long flap at once of the requisite additional length; the short flap may then be cut off at the same point at which its tissues would have been divided had the denudation of the bone been effected as in the common circular operation. The operation then resembles the double-flap method of Ravaton, with one of the flaps elongated and rounded at its free extremity, so that it may be bent over and made to fit the whole face of the wound. Such, in fact, is the well-known flap amputation below the knee, as performed by Liston, Fergusson and others, in which a long flap is cut from the tissues of the calf, and a short one in front.

If, now, the flaps have been cut of just the right length, they will fit admirably to each other, forming a well-rounded stump, with a lateral cicatrix; but it sometimes happens, in the course of the after-treatment, that the flaps shrink, so as no longer to cover the bone. A common cause of this accident is the tension dependent on a deficient length of the flaps, and the remedy consists simply in cutting one flap or both of more ample dimensions. In the latter case, no change in their form will be required, but if any considerable addition is made to the length of the long flap only, it will be necessary to double it upon itself, and it will no longer fit neatly in its new position. This leads us to the operation lately introduced by Mr. Teale,* which consists in making the long flap four times as long as the short one,† and cutting both with square instead of rounded ends. The wound is closed by doubling the long flap upon itself and securing its free extremity, by sutures, to the short one. Mr. Teale gives the important direction to make the long flap from "such parts as do not contain the larger bloodvessels and nerves," and it happens that "a flap so formed will be for the most part anterior in position as far as regards the general aspect of the body, but superior when the patient is in the recumbent posture"; this is, of course, a very "favorable position for allowing a free outlet for purulent and other discharges." Mr. Teale's operation certainly avoids tension, and gives an abundant covering of soft parts for the end of the bone, but it is by no means clear that the result is in any respect better than in the case of more nearly equal flaps. In fact, the shortening of the stump, owing to the extraordinary length of the long flap, which exceeds the short one by three eighths of the circumference of the limb, is, in the thigh, a sufficient reason for rejecting this method for all but a few exceptional cases.

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* This manœuvre is of the same importance here as in the common circular operation, and for the same reason; the bone is to be protected by the projection beyond it of the muscles which are immediately attached to it, and not by attempting to make a thick cushion of soft tissues over its extremity.

COMPARISON OF THE RELATIVE MERITS OF THE DIFFERENT METHODS WHICH HAVE BEEN DESCRIBED.

Each of the methods which have been described has its advantages and disadvantages, which must be carefully weighed before we can decide between them. This is a task of some difficulty, for almost every surgeon becomes wedded to a particular operation which he learns to perform well, and it often happens that he attributes his success to the excellence of the general method which he follows, when in fact it is chiefly due to his own skill in executing it. A good surgeon will overcome the defects of a bad method, and thus produce better results than can be obtained by the best operation in the hands of a bungler. It is most important, then, that every operation should be excellent of its kind, and I have already attempted to show how this excellence may be obtained in each of the four principal methods which have been described. It is true, nevertheless, that there is almost always a choice between several methods, and it is important to know the general principles by which the choice is to be decided. Good stumps may be made by almost every method, but it is also true that no method affords perfect security against failure. There is little doubt, however, that in this respect some operations are better than others, both as making better stumps and more of them. All methods are not equally favorable to the formation of a good stump by the process of granulation, yet we can never be certain, in any particular case, that the cure will not have to be effected in this way. No operation, therefore, can be accepted as good unless it is well adapted to a cure by granulation; but it is none the less essential, in the majority of instances, to encourage union by first intention, by so shaping the incisions as to secure the accurate coaptation of the cut surfaces, both of the skin and of the muscles. Some methods admit of great precision in planning and executing the several steps of the operation, and may therefore prove especially valuable to an inexperienced operator, who on a sudden emergency finds himself compelled to amputate. Other methods are comparatively free from the danger of untoward accident occurring in the course of the after-treatment, and are therefore to be preferred in cases where the care of the patient must be entrusted to persons of doubtful competency. Extreme rapidity of performance is of less importance now than it was before the discovery of artificial anæsthesia, but there are still instances enough, especially in military surgery, in which the operator will have need of all the dexterity which he may possess.

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* See abstract of Mr. Teale's paper in Braithwaite's Retrospect, Part xxxviii., 1859.

† The long flap is a perfect square, its length and breadth being equal to half the circumference of the limb at the place of amputation; the short flap is of the same width, but of only one fourth of the length of the long one. Mr. Teale marks out the flaps in ink and cuts them from without inwards, but they may be made more easily and with greater rapidity, in the thigh, by transfixion

In studying this division of the subject, I shall try to answer the following questions:—

1st. What constitutes a good stump, and what methods are best calculated to secure this result?

2d. What methods are best adapted to the process of healing by granulation, and which of them are also favorable to union by first intention?

3d. What methods are capable of the greatest precision in their execution, and are therefore most likely to insure a good stump in the hands of an inexpert operator?

4th. What methods are least liable to after-accidents, and therefore require the exercise of the least skill and attention on the part of the dresser?

5th. What methods are the most rapid and easy of performance?

It has always been a great desideratum in amputations of the thigh to make a stump capable of sustaining upon its extremity a part of the weight of the body. This result was actually attained by Gooch, Alanson, Benjamin Bell, and by John and Charles Bell, who all amputated by the circular method as described in the early part of this paper. Benjamin Bell[*] states expressly that the stump of the thigh made by his method "admits of the patient resting upon it with freedom"; and Sir Charles Bell[†] writes, "having occasion to see the amputation well performed by the double circular incision, the bone well covered, the cure rapid, the face of the stump broad and large, with a mere line marking the surface of the skin, I was convinced that the circular operation could not be improved." Of the nature of the best results attained by Larrey and Dupuytren, I cannot find any satisfactory account, but I believe that the plan of cutting the deepest muscular fibres at the same level as the section of the bone is essentially bad, and cannot but be prejudicial to the character of the stump; it is stated by Dr. King,* at one time house-surgeon *(interne)* at Hotel Dieu, that Dupuytren's stumps "were often conical in the wrong sense, and that sometimes even the bone was salient and afterwards exfoliated." The double-flap operation may be performed by transfixion, so as either to save or to sacrifice the greater part of the deep fibres, and in proportion as the former plan is adopted will be the degree of pressure which the end of the stump will sustain. If the incisions are made according to the rule established by Professor Nathan Smith, the deepest fibres will be preserved for an inch or more beyond the end of the bone, and this explains his statement* that, "for twenty years, during which he performed the operation a great number of times, he never made a bad stump." The successful result of the single-flap method will depend much, as has been already explained, upon the height at which the bone is sawn above the level of the section of the deepest muscles, and in the excellent operation of Mr. Teale, the deep muscles are preserved throughout the entire length of both flaps. It will be seen from these statements that I do not attribute the power of resisting pressure to any thickness of tissues which may be piled upon the end of the bone, but that my ideal of a good stump is rather one in which the soft parts form a ring-shaped cushion around the bone, and extending so far beyond it as to shield it and its cicatrix from chance knocks and to lift it from actual contact with any surface upon which the stump may rest. I believe that this general character may be given to the stump by either of the four principal methods already described, but that the circular operation of Dupuytren is that least adapted to this end. Such stumps are, however, comparatively rare, but the surgical mechanicians have effected a great deal in the way of relieving patients from the consequences of bad amputations. It happens that many a stump which could not endure the direct pressure of a single pound upon its extremity, will nevertheless bear a pretty powerful tensible strain when applied to its periphery. This fact lies at the foundation of the modern art of making artificial legs; the upper part of the limb is fashioned into a conical socket, the sides of which are made to correspond, more or less exactly, to the tapering form of the stump, thus distributing the bearing over the greater part of its lateral surface and letting the end of the stump hang free in the centre. The effect of this arrangement is to draw upon the cicatricial tissues which bind the skin and other soft parts to the end of the bone, at the same time that the immediate coverings of the bone are relieved from all pressure, and in this way a handsome and pretty serviceable limb may be fitted to a very bad stump. In other cases, when the stump is very short, or very tender, it is allowed to hang loose in the socket, and the whole weight of the body is supported upon the tuberosity of the ischium. Great as have been the triumphs of modern mechanical surgery, there is still no doubt that a stump which is fitted to bear considerable pressure upon its extremity will also best sustain the weight of the body in the conical socket of an artificial limb; I think, therefore, that Mr. Teale deserves our gratitude for bringing forward a method whose results are eminently calculated by contrast to compel the attention of surgeons to the great defects in many of the common methods of amputating.

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[*] Benj. Bell. Op. cit., vol. vi., p. 378.

[†] Charles Bell. A System of Operative Surgery, &c. 3d edition. London, 1814. Vol. ii., pages 17 and 18.

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* Cyclopœdia of Practical Surgery. London, 1841. Page 142. Art., Amputation.

† Nathan Smith. Op. cit., p. 222.

To promote the process of healing by granulation, either the incisions should be so planned as to allow the opposite surfaces of the wound to lie loosely in contact with each other, in order that adhesion may take place speedily between them; or else, if the wound is to be left entirely open, as was the practice of the older surgeons who employed the circular method, the bone must be sawn very much shorter than the muscles, and at the same time the skin must be preserved of good length that it may be the more readily drawn inward towards the centre of the stump by the contraction of the cicatrix. The former of these conditions is well fulfilled in the flap operations, and less perfectly in the circular method of Dupuytren; the latter, in the common circular operation. The flap operations and the circular of Dupuytren are eminently favorable to union by first intention; the common circular is less so. For the precision with which the work is laid out before hand, the preference must be awarded to the double-flap operation of Professor Nathan Smith, and the method of Mr. Teale with rectangular flaps; in both of these methods the flaps may also be cut by transfixion after they have been marked out in ink upon the limb. In the common circular operation, however, it is not difficult to remember to retract the skin until a breadth of fascia has been uncovered equal to half the diameter of the limb, and to denude the bone before sawing it, for a couple of inches above the plane of the section of the muscles. In this respect, also, the circular operation of Dupuytren is deficient, as its proper performance depends mainly upon an accurate eye and correct judgment at the moment of the incisions.

The local accidents which may result to a greater or less extent from a defective manner of operating, are inflammation and sloughing, as a consequence of tension of the soft parts; abscesses and sinuses, dependent in part on a bad form of the coverings; conical stump and necrosis, from excessive muscular retraction; and hæmorrhage, which has been supposed to depend in part upon the extent of the wound and upon the oblique section of the arteries. Some of these accidents may be averted by proper treatment, but if neglected, may become truly formidable. Tension of the coverings is a very common cause of pain and inflammation in the early stages of the treatment, and often leads to extensive loss of substance by sloughing. The best safeguard against it consists in preserving a large quantity of skin and muscle, for it is hardly ever the case that any inconvenience results from too ample coverings, however redundant they may appear at the time of the operation. Sinuses and collections of pus are sometimes caused by the too close confinement of the edges of the wound, while the deeper tissues are allowed to lie separated from each other, forming cavities for the lodgment of blood and matter. This is very apt to occur after the operation with a single posterior flap, in which case the weight of the flap drags upon the sutures in front, and tends to form a large pocket in a situation unfavorable to the escape of discharges. Conical stump and exfoliation of the end of the bone, as dependent upon original deficiency of the soft parts, or upon their excessive retraction, has been already treated of in the description of the common circular operation, and it need only be repeated in this connection, that the surest preventive of this unfortunate accident consists in the preservation of such of the soft parts as are themselves least prone to retract, that is, the deep muscular fibres which arise from or are inserted into the femur near its sawn extremity. The occurrence of hæmorrhage within a few hours after the operation is very frequent after secondary amputations performed in the neighborhood of inflamed parts; in such cases all the tissues of the limb are congested with blood, and the number of bleeding vessels is often very large, so that it may readily be believed that the larger the wound, the greater the probability that some of the dilated vessels may escape being tied. The danger of hæmorrhage from this cause may be greatly diminished, however, by leaving the wound open to the air for a few hours until its surface has become "glazed."[*] Of the different operative methods which admit of the perfect closure of the wound, the circular operation of Dupuytren exposes the least extent of cut surface; next to this, and exceeding it but very slightly, comes the double-flap operation of Vermale, Langenbeck and Nathan Smith. The common circular method exceeds these in the ratio of about three to two; and the operation of Mr. Teale, with rectangular flaps, exposes a greater extent of cut surface than any of the others, bearing the ratio to the first of 3½ to 2.[†] The ob-

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[*] This "glazing" of the cut surfaces seems not to inferfere with the healing of the wound by primary adhesion, and it indirectly promotes this result by the increased security which it affords against the separation of the flaps by coagula of blood.

[†] The relative extent of the cut surface is pretty accurately shown by the following demonstration, based upon the assumption that the thigh is a cylinder :—

Representing the radius of the cylinder by r, let s stand for the area of the cut surface in the common circular operation, s' in the circular of Dupuytren, s'' in the double-flap operation, and s''' in the operation of Mr. Teale.

In the common circular operation, the area of the cut surface is equal to the area of the cross section of the cylinder, plus the area of the inner surface of the cuff, plus the muscular lique division of some of the soft parts in the flap operations can only affect the form of the section of the principal arteries, which, from their size and known position, can be secured without difficulty; the smaller vessels, whose enlargement by inflammation is the chief cause of this form of hæmorrhage, are very irregular in their course, and are perhaps as likely to be cut off obliquely in the circular as in the flap methods. It is, of course, possible, occasionally, to split the femoral artery in transfixing the limb, but a very slight acquaintance with the anatomy of the thigh will enable the operator to avoid the vessel by varying slightly the direction of the flaps. Out of a considerable number of stumps of the thigh which had been wholly neglected for a week or two after the operation, I have seen by far the best results in cases in which the amputation had been performed by the double-flap method. I have little doubt, however, that under similar circumstances, equally good results may be obtained by other methods, provided only that the operation, whether flap or circular, is good of its kind. I have seen two or three very handsome stumps made by the method of Dupuytren, but they had received excellent care and had healed by first intention. I have seen many miserable failures in amputations performed by circular incisions, but I think that, in these cases, the fault lay rather with the operator than with the method.

For ease and rapidity of execution, the double-flap operation by transfixion, and, in cases suited to it, the circular of Dupuytren, stand first; the processes of Nathan Smith and of Mr. Teale, and the common circular method, involve a more deliberate dissection, and therefore require more time for their proper performance.

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surface exposed by the denudation of the bone. The thickness of the tissues of the cuff is about equal to half the diameter of the bone; the cut surface, therefore, will be equal to the area of the cross section of the cylinder, plus the area of the outer surface of the cuff, which makes

$$s=\pi r^2+2\pi r^2=3\pi r_2$$

In the circular operation of Dupuytren, the cut surface has nearly the form of a hollow cone, the circumference of whose base is equal to the circumference, and whose oblique height is about equal to the diameter of the cylinder. The area of this cone is half the product of its oblique height by the circumference of its base, which gives

$$s'=\frac{2r+2\pi r}{2}=\frac{4\pi r^2}{2}=2\pi r^3$$

In the double-flap operation, as it is usually described, assuming that the bone is sawn at the same level as in the circular operation of Dupuytren, the form of the cut surface will be that of two semi-ellipses, which are together equal to an ellipse whose conjugate and transverse diameters are 4r and 2r, and whose area is $2\pi r^2$. If, however, the operation is performed as described in this paper, the area of the cut surface will be greater in the ratio of about 6 : 5. This gives, therefore,

$$s''=2\pi r^2 \text{ or } 2\tfrac{2}{5}\pi r^2$$

In the operation of Mr. Teale, the area of the cut surface is equal to the area of the cross section of the cylinder, plus the area of the lateral surface of the long flap, plus the area of the lateral surface of the short flap, therefore

$$s'''=\pi r^2+2\pi r^2+\tfrac{1}{2}\pi r^2=3\tfrac{1}{2}\pi r^2$$

Comparing the several values of s, s', s'', and s''', we have the proportion

$$s : s' : s'' : s'''=3\pi r^2 : 2\pi r^2, \text{ or } 2\tfrac{2}{5}\pi r^2 : 3\tfrac{1}{2}\pi r^2 = 3 : 2 : 2 \text{ or } 2\tfrac{2}{5} : 3\tfrac{1}{2}$$

The choice, then, of the operative method best suited to any particular case, may generally be decided by a reference to the following points:—

1st. In cases where the injury or disease is confined to one side of the limb, the method with a single flap, or that of Mr. Teale with unequal rectangular flaps, is especially indicated, and its adoption may result in a saving of several inches in the length of the stump, which would be sacrificed by a more symmetrical operation.

2d. If the incisions are to be made in tissues consolidated by inflammation, the operation can be performed better and with greater ease by flaps than by either of the circular methods.

3d. If there is a probability that the after-treatment will have to be conducted under unfavorable circumstances, or by unskilful persons, the circular operation of Dupuytren is that least likely to give a good result.

4th. If the operator himself be unused to amputating, he will do much towards ensuring a good result by first marking out the outlines of the flaps, or, if he adopts the common circular operation, by pausing to estimate the progress of his work, both after the retraction of the cuff of skin, and before sawing the bone.

Finally, if the operator is expert, the parts healthy, and all the circumstances of the case favorable to a speedy union, it matters but little, comparatively, which method is adopted. If, however, I were called on to name the method which is applicable to the greatest number of cases as they occur in practice, I should have little or no hesitation in awarding that distinction to the double-flap operation performed by transfixion, as I have described it; and I would especially advise an inexperienced operator first to mark out the flaps, in the manner taught by Professor Nathan Smith.

[To be continued.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JUNE 11, 1863.

Dr. Bowditch's Valedictory Address.*—We have looked for the publication of this address with much interest, as we wished to renew the satisfaction with which we listened to its most eloquent language as it fell from the lips of the author when addressed to the graduating class. It was heard with rapt attention at that time, and in its printed form will long be treasured as a most beautiful and truthful appeal for the real dignity and lofty moral position of the medical profession. As a means of developing the whole nature of man, the author claims for it the first rank. Analyzing the desires which actuate most men in their daily experience, he distributes them into the desire of—first, physical enjoyment; second, the gratification of the finer sympathies and emotions; third, the culture and exercise of the intellect; and, fourth, the development, at some time in man's career, of the highest spiritual element in his nature. Each of these divisions of his subject he takes up in turn, and shows what admirable opportunities our profession affords for the satisfaction of these aspirations, and for the development of the highest type of human character. We cannot follow in detail the earnest and attractive argument by which Dr. Bowditch led his audience captive to the conclusion which was the object of his discourse, enforced as it was by some of the most touching and profound experiences of his own life, and which he did not hesitate, with the most noble frankness, to lay open to his hearers. We should do great injustice to those life-pictures did we attempt, by any abbreviated sketch, to convey an idea of their beauty and solemnity—they must be read in the original to be properly appreciated. The address concludes with a stirring appeal to the patriotism of the graduating class, to act a worthy part at the present hour, when the cause of freedom and our common country affords so many opportunities for the exercise of the noblest traits of character as men, and the highest professional skill as physicians. We pass on to the second part of the pamphlet.

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* Valedictory Address to the graduating Medical Class of Harvard University, March 11th, 1863. By Henry I. Bowditch, M.D., Professor of Clinical Medicine. With additional remarks, or a brief Plea for an Ambulance System for the Army of the United States.

As is well known to most of our readers, since the delivery of his valedictory address, Dr. Bowditch has been added to the host of mourners with which this desolating war has filled the land, by the loss of his eldest son in battle. Upon no one could such a blow have fallen with a more crushing weight. But rising above the pardonable feeling, which might well have led him to withdraw from the active prosecution of the project which he has heretofore pursued with so much interest—the establishment of a uniform, thorough ambulance system for the whole army of the United States—Dr. Bowditch is able to make use of his own son's needless sufferings as an added argument for the importance of such an organization.

For nearly a year, now, Dr. Bowditch, with others, has been laboring to have such a system introduced throughout the army, as a permanent part of its organization. The highest authority has been appealed to, and in the most respectful terms, by the medical profession of our own and other States. Our State Executive has again and again urged it upon the National Government—the opinion of a distinguished military leader has been unequivocally given in its favor, and yet nothing has been done. An imperfect system, it is true, is in existence in the army of the Potomac, but even this in its operation and efficiency depends upon the interest taken in it by the division commanders, who, we understand, are under no particular responsibility to see that it is kept at all times in the best working order, and that it is brought into operation when it is needed. What is wanted, is an act of Congress making such an organization the law of the land. Efforts have been made to effect this. A bill for the purpose unanimously passed the House of Representatives during the last session of Congress, but failed to become a law, because the Military Committee of the Senate reported against it. Thus the matter stands; nothing has been effected.

We confess we are surprised and mortified at this state of things.

Here is a government, ostensibly the servant of the people, bound in honor to do everything in its power to promote the public welfare,—and here is a war, taxing to the utmost the energies of the nation and cutting it to the very heart, calling out the untiring efforts of the whole community to alleviate in every possible way the heavy burden of suffering which every day increases,—and yet, for some inexplicable reason, one of the most important means of relieving this suffering is left to the irresponsible action of division commanders, for want of a compulsory authority above them! Truly does Dr. Bowditch say that the time has come when "the People must take this matter into its own hands, and *compel* the Government to look fairly at the whole subject."

FOURTEENTH ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.—We condense from the *American Medical Times* the following account of the proceedings of the third day. Our own report failed to reach us.

THURSDAY, 9, A.M. MORNING SESSION.—The Association was called to order by the President. After a partial reading of the minutes, the further reading was dispensed with.

On motion, Dr. Greene, of Mass., was invited to a seat on the platform.

The following gentlemen were admitted permanent members by invitation:—Isaac Snyder, Jackson, Mich.; R. B. Treat, Janesville, Wis.

The following were admitted members by invitation:—Granville S. Thomas, Joliet, Ill.; J. S. Pashley, Osceola, Ill.

Dr. Cox, of the Army, announced the sudden departure of Dr. Wilson Jewell, of Penn., caused by receiving intelligence of the unexpected death of a son, and offered a resolution of condolence, which was adopted.

Regular business being in order, the reports of Committees were taken up.

Dr. Gilbert, of the Army, in behalf of the Committee on the Extinction of the Aboriginal Races, reported progress, and, on motion, the Committee was continued another year.

The President having announced that the order of the Surgeon-General, U.S.A., debarring calomel and tartar emetic from the use of Army surgeons, and which was previously referred to a committee, was in order, by consent of the Association the committee on the subject offered a substitute for the resolutions introduced yesterday. Pending the discussion, previous to the vote, Dr. Cox, of the Army, said substantially as follows:—

While the Association had the right to protest against the order of the Surgeon-General, he wished it to remember that the order referred exclusively to the corps of Army Surgeons under his control, and had no reference to the use of those drugs in private practice. The order originated in the abuse of calomel by a number of incompetent surgeons in the Army, appointed by the Governors of the several States, who consider the *liver* the pack-horse of the human system. The Medical Bureau of the United States comprises men of science, who understand how far the evil has been perpetuated and the necessity of correcting its abuses. The fact that other mercurials have not been interfered with, shows how great is the necessity that exists for an order so apparently sweeping, and which the Association deems so arbitrary.

He did not desire to protract the debate, but felt it due his position to say something before the final vote should be taken. He was not up either to defend or condemn the order. In a long practice he had seen the abuse of calomel in improper hands, as well as its benefits from its legitimate and judicious use. He wished a discrimination to be made between the propriety of the order and the motives of the Surgeon-General. That gentleman's high character and motives are not to be questioned in this or any other public body. He deserved the thanks of the profession for the wholesome interest he had taken in the matter.

Dr. Cox's position called up several members, in reply. Calomel had fallen under the ban of an "unwise, unnecessary, and unprofessional" order, and that order received animadversion, ridicule, and unstinted opposition. The discussion became general, and while some desired to place no obstacles in the progress and encouragement of our armies in the field, their opinion of the order was of a character that culminated in the following resolutions, which were adopted:—

"*Resolved*, That from evidence within our possession, we can but entertain the conviction that the Surgeon-General of the U. S. Army has been led into expressions, in Order No. 6, which will convey errors respecting the abuse of calomel in the Army, and we feel called upon to protect, so far as in our power, the reputation of the intelligent and self-sacrificing medical officers from the implied imputation of such general mal-practice.

"*Resolved*, That while regarding spanæmic medicines, particularly calomel and tartar emetic, when freely administered to soldiers in the field, the camp, or the hospital, where unfavorable hygienic conditions so commonly cause depression and asthenic conditions of the system, as being very often productive of injuries; yet that these articles, when judiciously employed, are useful, is a proposition according with the general opinion of the profession; and as abuse of an article is no just argument against its proper use, it is, in the judgment of this body, to be regretted that the object of correcting these abuses was not sought to be effected by an order of caution on the subject, and by dismissing from the service those disregarding such caution, and not by the extraordinary and, as we think, unjustifiable course of attempting to prevent, entirely, the use of articles, though liable to abuse, as are all-powerful agents, yet which are well established in the professional confidence as capable of useful application.

(Signed) L. M. Lawson, Chairman."

The entire report, giving a history and details of the subject, in the same spirit, was also adopted.

On motion, it was resolved that a copy of the above resolutions be forwarded to the President of the United States, the Surgeon-General U.S.A., and the Secretary of War.

The Nominating Committee reported the following officers of the Association for the present year:—

Secretaries—Drs. H. A. Johnson, Illinois; Guido Furman, New York.

Committee of Arrangements—Drs. James Anderson, N. Blakeman, T. M. Markoe, T. C. Finnell, Austin Flint, Jr., E. S. F. Arnold, J. H. Griscom.

Committee on Prize Essays—Drs. D. F. Condie, Pa.; E. Wallace, do.; Wilson Jewell, do.; E. R. Peaslee, N. Y.; Alfred Stillé, Pa.

Committee on Medical Education—Drs. J. C. Dalton, N. Y.; M. L. Linton, Mo.; John Frissell, Va.; Howard Townsend, N. Y.; W. H. Byford, Ill.

Committee on Medical Literature—Drs. L. M. Lawson, Ohio; J. L. McGugin, Iowa; William Mayberry, H. Noble, Ill.; John Homans, Mass.

Committee on Publication—Drs. F. G. Smith, Chairman, Pa.; Caspar Wister, do.; Ed. Hartshorne, do.; H. F. Askew, Del.; S. G. Hubbard, Conn.; H. A. Johnson, Ill.; Guido Furman, N. Y.

Committee on Insanity—Drs. Ralph Hills, Ohio; C. H. Nichols, D. C.; D. P. Bissell, N. Y.; S. W. Butler, Pa.; John S. Butler, Conn.

Dr. Lee, from the Committee on Medical Literature, reported progress, by letter, requesting permission to present his report directly to the Committee on Publication.

A report was received from the Committee on Voluntary Communications.

Dr. Dalton was excused from further serving as chairman of the Committee on the Ambulance Corps, and Dr. J. M. Warren was substituted.

Dr. N. G. Davis commenced reading a paper on "The American Method of Treating Joint Diseases and Deformities," which was referred to the Committee on Publication, and its further reading suspended.

Dr. Homberger, delegate from New York, in behalf of Dr. Elsberg, of New York, showed some instruments for the treatment of diseases of the larynx, a "laryngoscopical mouth-piece," a laryngeal brush, a "a sponge carrier," a porte-caustic, an insufflation-tube, a fumigating-tube, and an electropole. These latter six instruments have all a curvature of 112°, which Dr. E. found most efficient in carrying out the objects of laryngoscopical local medication.

Dr. Homberger presented a case of "retroversion of the iris, dislocation of the lens into the anterior chamber, with complete detachment of the retina." Dr. H. asked the members of the Association whether a similar case had occurred in their practice, and concluded with some further remarks on the case on the inquiries of Dr. Alden March. Both communications were referred to the Committee of Publication.

The paper of Dr. Griscom, on a case of diarrhœa adiposa (read on Tuesday afternoon) was, on motion of Dr. Furman, referred to the Committee of Publication.

Dr. A. Fisher, of Illinois, presented a paper on the use of sulphites of lime and soda in the treatment of hospital gangrene, phlebitis, erysipelas, and other zymotic diseases, and related a number of cases.

On motion, the paper was referred to a committee of three, of which the author is chairman, to continue his investigations and report again next year.

Dr. Cox, of the Army, offered two resolutions—one of thanks to the citizens of Chicago for their kindness and hospitality shown to the members of the Association during its session, and another of thanks to the retiring Secretary, Dr. Hubbard, for his able and faithful services.

The Amendments to the Constitution of the Association, proposed at the last meeting, were called up, discussed, and rejected.

A complimentary resolution, by Dr. Happ, of Virginia, thanking the President and Secretary for their services, was adopted.

The following gentlemen, on motion of the Committee of Arrangements, were elected permanent members of the Association:—L. H. Cary, Toledo, Iowa; Horatio Hitchcock, Chicago; L. F. Warner, Chicago; L. P. Cheney, Chicago; C. W. Shumway, Chicago.

Dr. N. S. Davis, of Ill., spoke of the use of sulphite of lime in erysipelas, and stated that in the last half of March and the first part of April, 1863, erysipelas was more prevalent in Chicago than usual; and, as a consequence, several very severe cases, occurring among the poorer classes, were received into the Mercy Hospital. All these cases were treated very successfully by the use of sulphite of lime in one-drachm doses every three hours. The nourishment in all of the cases was chiefly milk porridge and animal broths.

In commenting on these cases, it was not claimed that they were sufficient to establish the efficacy of sulphite of lime in the treatment of diseases dependent on blood-poisoning or degeneration. But they do show that the remedy may be given in large doses with perfect safety, and, taken in connection with the cases related by Dr. Fisher, it is rendered highly probable that the sulphites will be found exceedingly valuable in the treatment of a whole class of severe and often fatal diseases. On motion, the Association adjourned to 3, P.M.

Afternoon Session.—The Convention assembled and was called to order by the President at 3, P.M. The minutes of the morning session were read and approved.

A letter was read from Dr. Russell, of Ohio, asking to be excused from further service on a special committee to report on "Stimulation in Fracture." Request granted.

A similar communication was also read from Prof. Sage, of Michigan, wishing to be excused from a special committee on Blood Corpuscles, and disposed of in the same manner.

Dr. N. S. Davis offered an amendment to the Constitution, providing for the appointment of one permanent secretary. Under the rules of the Association, the amendment lies over one year. The Committee on Nominations reported the appointment of numerous gentlemen to act upon various matters that might come before the next annual meeting. The report was accepted, and the committee discharged.

Dr. Hubbard moved an addition of one from each State be made to the Committee on Necrology. Carried.

The following resolutions were offered by Dr. Arnold, of New York, and carried:—

Whereas, The railroad is fast becoming the great medium of land travel in all parts of the world; and whereas, in spite of all regulations and care, serious accidents are continually occurring, attended with loss of life, such being greatly augmented by the total want of any local medical provision to meet such, as well as by the absence of any appliances whatever calculated to strengthen the hands of the surgeon; therefore be it

Resolved, That such medical provision shall be made by the railroad; and that by the diminution of suffering, as well as by the saving of life, while economy would accrue to the railroad companies, the interests of humanity would be greatly served.

Dr. Hibbard, of Indiana, offered the following amendment to the Constitution :—

> That the President and Vice President of this Association elected each year, shall assume the functions of their respective offices at the beginning of the meeting of the year next succeeding their election.

Under the rule the proposed amendment will lie over till next meeting.

Dr. McGugin, of Iowa, from the committee appointed to memorialize Congress on the subject of relative rank and pay of army surgeons, made a lengthy report, and, on motion, the report was accepted and adopted.

On motion of Dr. Griscom, it was ordered that the report be printed and distributed to the members of Congress, heads of departments, and others likely to influence action upon the subject.

Dr. Wing offered the following as an addition to the memorial, which was adopted :—

> *Resolved*, That it be recommended that, in carrying out the object of this memorial, every promotion shall be attended by a suitable examination into his qualification, and the merits of his military record.

Dr. Homberger, of New York, offered the following resolution, which was, on motion of Dr. Prince, referred to the Committee on Medical Education for the coming year :—

> *Resolved*, That the American Medical Association recommend to the Faculties of Medical Colleges in this country, to create Chairs of Ophthalmology, recently so importantly advanced by the invention of the ophthalmoscope.

On motion of Dr. Hubbard, of New York, the Association adjourned *sine die*.

Internal Use of Chloroform in Puerperal and Hysterical Convulsions. *Messrs. Editors*,—In the interesting article on puerperal convulsions, contributed by Dr. Murphy for the Journal of May 14th, is the following quotation :—"I would advise the administration of chloroform in all ordinary cases of puerperal convulsions."

About six years ago I had a terrible case of puerperal convulsions. A Mrs. Miars, by jumping from a wagon, brought on premature labor pains and hæmorrhage. Five hours after, I was called to see her. Found her in severe convulsions, recurring every twenty minutes. A thorough course of usual treatment was of no benefit. Sent three miles to my office for chloroform, and administered it by inhalation, but no permanent benefit resulted from it. Finally, gave chloroform gtt. xx., aquæ ℥ij., to be repeated in half an hour, and half the quantity every four hours for twenty-four hours; followed this with a mild cathartic. Two weeks subsequently, the patient was delivered of a dead child. During labor, symptoms of convulsion occurred, but they immediately yielded to the internal use of chloroform. Since then I have had one case of puerperal, and several of hysterical convulsions, and they have been readily subdued by the above treatment.

Tremont, Tazewell Co., Ill., June 6th, 1863. M. W. Case, M.D.

The Male Lunatic Asylum of Venice, says Prof. Chas. A. Lee in the *American Medical Times*, accommodates 360 patients. During the last five years, the total number treated was 1314, the deaths 377. Of this number, 411 were cases of pellagra, with 133 deaths. This disease is common in Italy, and is apt to be followed by the melancholic form of insanity. No corporal restraints are used in the establishment. Various workshops are connected with it, in which different trades and pursuits are carried on by the patients.

At the Royal London Ophthalmic Hospital, a severe case of amaurosis was lately presented, evidently brought on by the immoderate smoking of tobacco. Examined with the ophthalmoscope, both optic nerve disks were found partially atrophied; the apparent inner half of each white, the outer red and hyperæmic. Mr. Wordsworth pointed out the case to the class as one of "tobacco amaurosis," of which he had lately seen several in excessive smokers, with similar symptoms. This form of amaurosis he considered quite incurable.

The semi-annual meeting of the Vermont State Medical Society will be held at Woodstock on the 24th and 25th days of the present month.

Dr. George Derby, of Boston, formerly surgeon of the 23d Mass. Vols., has been appointed by Gen. Foster Senior Surgeon of the Beaufort, N. C., District. Dr. Roberts, Assist. Surg. of the 23d, has received the appointment of Surgeon in the 2d Regiment of Gen. Wilde's Colored Brigade.

The health of the city of Providence, as shown by Dr. Snow's report for the month of May, had improved during that month, the number of deaths having been 105 in April and 83 in May.

At a meeting of the regular medical profession of Cincinnati, called to consider the late Circular No. 6 of the Surgeon-General of the United States in reference to the use of calomel and tartar emetic in the Army, a committee was appointed to report the sense of the profession on the subject. At a subsequent meeting the committee reported, denying the truth of the statements on which the Surgeon-General's order was founded, charging him with the assumption of powers not belonging to his office, and ending with a resolution that his removal therefrom would meet the approbation of the profession, be of advantage to our soldiers and creditable to the government.

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, June 13th, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - - -	31	43	74
Ave. mortality of corresponding weeks for ten years, 1853—1863,	31.8	30.5	62.3
Average corrected to increased population - - - -	00	00	68.66
Death of persons above 90 - - - - - - - -	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
20	3	3	7	0	2	1	1

Communications.—Papers have been received from Dr. George T. Shipley, U.S.N., and Dr. Daniel V. Folts.

Died,—At Washington, D. C., of typhoid fever, James Wightman, M.D., Assistant Surgeon of the 2d Reg't Mass. Vols., aged 22 years.

Deaths in Boston for the week ending Saturday noon, June 13th, 74. Males, 31—Females, 43.—Abscess, 1—accident, 1—apoplexy, 1—congestion of the brain, 1—disease of the brain, 1—bronchitis, 1—cholera morbus, 1—consumption, 20—convulsions, 1—croup, 3—cyanosis, 1—cystitis, 1—debility, 2—diabetes mellitus, 1—diphtheria, 1—dropsy, 2—dropsy of the brain, 3—dysentery, 2—erysipelas, 1—scarlet fever, 3—typhoid fever, 1—disease of the heart, 2—infantile disease, 3—disease of the kidneys, 1—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 7—lupus, 1—measles, 1—paralysis, 1—poisoned (from paint), 1—premature birth, 1—rheumatism, 1—teething, 2—tumor (uterine), 1—unknown, 1.

Under 5 years of age, 28—between 5 and 20 years, 6—between 20 and 40 years, 25—between 40 and 60 years, 6—above 60 years, 9. Born in the United States, 45—Ireland, 23—other places, 6.

THE

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TWENTY CASES OF GUN-SHOT WOUNDS.

[Communicated for the Boston Medical and Surgical Journal.]

United States General Hospital, Hilton Head,
Port Royal, S. C.

Messrs. Editors,—In one of my former communications to your Journal, I gave a short description of this Hospital, together with a report of some of the most important medical and surgical cases which had been treated here since it had been opened for the reception of patients. The surgical cases then referred to were composed chiefly of the soldiers who were wounded in the battle on James Island, which took place on the 16th of June last. I now propose to give you a brief sketch of a few of the cases of men wounded in the battle of Pocotaligo, October 22d, and afterwards sent to this Hospital.

VARIETY OF WOUNDS.

Amongst a large number of soldiers wounded in a battle, there must of necessity be a great variety in the character of the wounds received, arising from the locality of the injury as well as from the kind of weapon by which the wound has been inflicted. When the different kinds of missiles used in war have been hurled into the ranks of opposing armies, the buck-shot, the slug, the rifle and the Minié ball, the grape-shot, the cannon ball and the shell, all show the work they have performed, when we examine a great number of wounded men brought into a military hospital after a battle. The effects of the bayonet and the sabre are less frequently encountered. The results in this battle were not different from the usual experience under such circumstances. A classification of the wounded might have been made with reference to the kind of instrument by which the injury had been inflicted, but in cases where the ball has not been found it is not easy to discriminate. It is better, therefore, to consider the different kinds of wounds with reference to their anatomical relations.

WOUNDS OF THE HEAD.

I.—Wm. Kay, Co. F, 7th Connecticut, when brought into the Hospital was partially insensible. There was a wound in the scalp on the left side of the head, and that side of his face had a tumefied, contused and purple appearance. His left eye was swollen and closed, though he was still sensible to external impressions, would awake when an attempt was made to arouse him, and then his right eye became bright and intelligent. On a careful examination, it was found that he had a fracture of the cranium; that some kind of missile had struck him on the left parietal bone, near the angle where the parietal, frontal and temporal bones meet; that it had broken the parietal bone, but without entering the cavity of the cranium; had passed downwards, fracturing the temporal, malar and superior maxillary bones in its passage. On placing the hand below the inferior maxillary, which was covered by a heavy beard, a large protuberance was felt, which was movable, and had the feeling of a foreign body. On cutting down upon and extracting it, I found it to be an iron ball more than an inch in diameter, and which was afterwards ascertained to weigh nearly four ounces avoirdupois. He lived, after this ball had been extracted, over fifteen hours. The time when he received the wound could not be very accurately ascertained, but according to the most reliable accounts from his comrades, it was early in the battle, which took place on the 22d, and probably about forty-eight hours before his death. The matter of surprise is, that such a wound did not prove immediately fatal.

II.—Gottlieb Feisel, Co. K, 47th Penn., had received a wound of the scalp on the left side of the head, extending backwards across the suture connecting the frontal and parietal bones. About one inch of the length of the wound in the scalp was over the frontal, and two inches over the parietal bone. The wound, which appeared to have been inflicted by the fragment of a shell, was cut down clean and the bone laid bare. The head was shaved, and the edges of the wound were brought together and secured by sutures and adhesive straps, over which cold-water dressings were applied. His mind was perfectly clear, and no bad symptom appeared until the morning of the 27th, when he had a convulsion. He was immediately brought into the operating room, and, on making a cross incision and dissecting up the flap, I discovered that the parietal bone was fractured and a portion of it depressed. I applied the largest-sized trephine, partly over the sound and partly over the depressed portion, and through the opening a triangular fragment, nearly an inch in one diameter and an inch and a half in the other, of splintered and depressed bone, from the inner table, was extracted. The dura mater was not torn. The symptoms of compression immediately disappeared. For the first four or five days after the operation everything appeared to indicate a happy termination and to afford a fair prospect for his recovery, but symptoms of an unfavorable character then made their appearance, and he died from inflammation of the brain on the 9th of November.

Wounds of the Trunk.

III.—Edward S. Smith, Co. F, 7th Conn., was wounded by the fragment of a shell, which struck him on the shoulder, over the scapula of the right side, and tore away the integuments and muscles down to the bone, inflicting a ragged wound, nearly circular, of full two and a half inches in diameter. It was found that the spine of the scapula was injured, and I removed several small pieces of bone from it. Some sloughing took place, which was removed by the application of a poultice. After a short time, healthy granulations appeared, and the wound healed rapidly, except in one place over the spine of the scapula. On examination, it was found that a piece of that part of the bone, about an inch in length, had exfoliated, and was easily removed. The wound then healed rapidly, and on the 19th of November, less than a month after the injury had been inflicted, he was able to return to his regiment. This patient was a young man, of temperate habits, great physical endurance, and of hopeful mental constitution. All these circumstances contributed, no doubt, to the very favorable result in his case.

IV.—Wm. Zeigler, Co. I, 76th Penn., was struck by a round ball, which entered the left arm on the external side, a little below the shoulder-joint, and passed through transversely in front of, but without injury to, the bone. The ball entered the side immediately on its exit from the arm, and, striking against the fourth rib, glanced backwards and downwards, and was found lodged under the skin between the spinous processes of the fifth and sixth dorsal vertebræ. It was removed by cutting down upon it, the day after the battle. The whole track of the ball was not less than fifteen inches in length. Two or three small pieces of bone were removed some time afterwards, which had probably exfoliated from the fourth rib, where it had been first struck by the ball. The wound, though so extensive in its character, did not produce any severe constitutional symptoms, and healed rapidly.

This wound, though the track of the ball is less extensive than has often been met with in other cases, affords a good illustration of the erratic course which such missiles sometimes take when meeting with trifling obstructions. It will be observed that, after passing through the arm and striking against the fourth rib, the ball turned backwards, almost at a right angle to the course in which it had been previously moving.

At the time Zeigler was admitted into the Hospital, and after the wounds already described had received proper attention, it was observed that there was a slight wound on the top of the right shoulder. It had the appearance of a scratch inflicted by some missile which had passed across the shoulder horizontally, just grazing the skin. A simple dressing was applied, and in a few days it had perfectly healed, and of course it excited no further attention. About a month afterwards, however, he informed me that he felt a "hard lump" on his back, below the right shoulder-blade. On examination, I discovered a foreign substance lodged pretty deeply amongst the muscles, just below the inferior angle of the scapula. On cutting down upon it, I found, to my surprise, a Minié ball, nearly an inch in length, which I extracted. It must have passed from the wound on the top of the shoulder under the scapula, and lodged in the place where it was found, more than six inches from the point of entrance. There had been no pain, no inflammation, no difficulty in moving the right arm or shoulder, and the patient was not aware that he had been wounded on that side. He told me afterwards that after he had received the wound in the left arm and side, he fell out of the ranks and laid down in a thicket of bushes, where he heard the balls whistling about him, and that he supposed he must have received the second wound while lying there on his face, though he was not then aware of it. This statement was no doubt correct, as the course of the ball indicated that the wound had been inflicted while he was in a recumbent position, with his head towards the enemy.

Notwithstanding these wounds, the patient recovered rapidly, and at the end of about six weeks he was reported fit for duty, and on the 2d of December returned to his regiment.

Wounds of the Extremities.

Upper Extremities. V.—Wm. Boone, Co. G, 55th Penn., had received a wound from a Minié ball, which struck the anterior part of the left arm, about the upper third of the humerus, and passed transversely directly through, fracturing and comminuting the bone. The orifices in the soft parts were very large, and I removed the fragments of the broken bone through the openings without enlargement. The wounded limb was then placed on an angular splint and permitted to remain in a proper position, in the hope that the efforts of nature might be able, to some extent, to repair the injury, and that the limb might be saved. For several days afterwards, the wound appeared to be doing well, but the inflammation continued to increase, the suppuration became very copious, and the patient's strength was gradually failing. External applications, with nourishing diet and stimulants internally, having proved unavailing, it was decided to amputate the limb. After the operation no reaction took place, and he died on the 12th of November.

Perhaps one of the most difficult problems which a surgeon has to solve, is that of determining whether a primary amputation should be performed in such cases as the above or not. In the true spirit of conservative surgery, he is desirous to spare an operation and to save a limb whenever it is possible to do so; but when the attempt proves unsuccessful, he is led to regret the course which has been pursued. It is quite probable that in this case an operation immediately after the accident might have saved the life of the patient.

VI.—Nathan George, Co. B, 47th Penn., had received a wound from an iron ball, one inch in diameter and weighing nearly four ounces, which struck the right arm on its external face, about two inches above the elbow-joint. The course of the ball tended slightly upwards, and the point of exit on the inside of the arm was about one inch higher up than the point of entrance. On examination, it was found that the os humeri was fractured, splintered and comminuted. The case was considered a favorable one for resection of the bone. An incision about five inches in length was therefore made on a line with the length of the humerus, and, passing through the wound made by the entrance of the ball, was carried down to the bone. I removed several pieces of bone, varying from half an inch to two inches in length. The end of the lower, and also of the upper fragment, was cut off by the chain saw, immediately beyond the point of injury in each, the lower fragment being cut off as low down as could be done without injury to the elbow-joint. About four inches of the length of the humerus was removed. Only one artery, and that a cutaneous one, required a ligature. The wound was then closed with sutures and adhesive straps, and the arm was placed on an angular splint.

After the operation there was no violent inflammation or extensive suppuration, and for several days there was every prospect of a favorable result. The patient was then suddenly seized with a violent pain in the right side and in the abdomen, for which the remedies applied afforded but a temporary relief. He lingered till the 13th of November, and then died. On a *post-mortem* examination, it was found that a large metastatic abscess had been formed in each lobe of the liver.

It is well known to surgeons that metastatic abscess of the liver, or of some other of the internal organs, is one of the most frequent causes of death after important operations. In this Hospital, that termination has occurred in several instances. Perhaps it happens more frequently in warm climates than in temperate latitudes.

VII.—Peter W. Stocksleger, Co. H, 47th Penn., was wounded by a Minié ball, which struck the anterior portion of the left arm, about two inches above the elbow-joint, passed obliquely upwards and backwards, and went out on the posterior portion of the arm, about two and a half inches higher up than the point of entrance. The humerus was of course fractured and extensively comminuted. There being no reasonable probability of saving the arm, it was determined to amputate it. I performed the operation by the circular flap, immediately above the highest point of injury. No bad symptoms followed, and the stump healed with unusual rapidity. He was discharged on the 23d of December.

Fore-arm. VIII.—Wm. Kieff, Co. A, 7th Conn., wounded in the left fore-arm by a Minié ball. It entered about the middle of the arm, just at the external edge of the radius, and passing outwards and backwards, went directly through the ulna without injury to the radius. The ulna was considerably shattered and comminuted, as is nearly always the case when a bone is struck by a Minié ball. After the removal of the splinters and pieces of comminuted bone as far as possible without enlarging the wound, the arm was placed in a splint and dressed in the usual way. For a time there was a good deal of inflammation, but by the steady application of cold-water dressings and other remedies, and after one or two pieces of exfoliated bone had been removed, the excessive inflammation was subdued. It was found, however, that the ends of the bone had not united after six or seven weeks from the time the injury had been received, though some callus appeared to have been formed. The case is still under treatment, and there is some prospect that bony union will finally take place.

The reason why bones fractured in gun-shot wounds do not, as in this case, readily unite, seems to be that the vitality of the bone and periosteum is destroyed, often for a considerable distance from the point of fracture. Consequently, when a callus is formed, the dead bone is involved in it, which must be separated before a firm union can be accomplished.

LOWER EXTREMITIES.

Femur. IX.—Wm. Soly, Co. C, 7th Conn., had received a wound exactly in front of the left thigh, about two and a half inches above the knee-joint. The wound had the appearance of having been inflicted by a Minié ball, which had fractured and comminuted the bone without passing through the limb. The ball had struck a little on the inside of the centre of the shaft of the bone, and had fractured and comminuted that side, while the outside of the bone had only received a transverse fracture, leaving the length of the bone on that side undiminished. The fragments, one of them more than an inch in length, I removed without enlarging the original wound, and the limb was then placed in Physick's Desault's splint, with just sufficient extension and counter-extension to bring the ends of the fractured bone into apposition, in the hope that a callus might be formed and that bony union might take place in the usual way. For a few days the patient was in good spirits, and appeared to be doing well, but a streak of lymphatic inflammation was then observed to be running from the wound up the limb; delirium came on, and he died, on the 9th of November, with the usual symptoms of pyæmia. In this case it is possible that an operation might have been successful, but it is understood amongst surgeons in our military hospitals that the results of amputations above the knee have not been so encouraging as to favor that practice when there is any probability that the life of the patient may be saved in any other way.

X.—Comly Idall, Co. F, 47th Penn., was wounded in several places: 1, The bone of the right thigh was broken about the upper third. 2, A gun-shot wound in the internal side of the same thigh, near the scrotum. 3, A gun-shot wound in the internal side of the left thigh, very high up, just below the scrotum; the ball entering at that point and passing backwards and downwards, came out posteriorly about the middle of the thigh. This wound was probably inflicted by a Minié ball. 4, A wound from a grape-shot, which passed transversely through the calf of the leg at its thickest part, immediately behind the bones, but without injuring them. 5, A buck-shot probably had passed through the dorsum of the penis, but without injuring the urethra.

On a careful examination of the wound on the inside of the right thigh, it was found that a grape-shot, more than an inch in diameter, had entered there, and, after having passed downwards and backwards, had fractured the right thigh bone, against which it was found embedded. After the extraction of this grape-shot, the wounds were all dressed, and the fractured limb placed in Physick's Desault's splint. After such complicated and extensive injuries, little hope of a favorable result could be entertained, and notwithstanding all our care and attention, he gradually sunk under the number and severity of his wounds, and died on the 30th of October.

XI.—Frederick Kiell, Co. K, 47th Penn., was wounded in the right thigh by a grape-shot, which struck the limb about three inches above the anterior portion of the external condyle, and passed through transversely to the posterior internal side of the limb about an inch higher up than the point of entrance. The os femoris was broken and comminuted, but not extensively splintered. The ball had passed in front of, but very near to the femoral artery. The splinters and loose pieces of bone were removed without enlarging the wound, and I then placed the limb in Physick's Desault's splint. The patient was young and vigorous, and though the fever which resulted ran high and the suppuration afterwards was very profuse, he bore it well and retained a cheerful spirit. After six or seven weeks it was found that the bone had united by callus, though the suppuration still continued, and the external wounds showed very little disposition to heal. About this time his life was placed in imminent jeopardy by a little precipitation on the part of the nurse in attempting to move the limb, which was done in such a manner as to throw the strain on the point of fracture.

This was followed by very severe pain which continued for some days, and was then succeeded by erysipelas which attacked the whole limb below the wound, even to the ends of the toes, and the thigh for some distance above the wound. After a few days, however, the erysipelas subsided and his general health began to improve. The wound still continues to suppurate freely, and there can be no doubt that there are pieces of dead bone involved in the callus, which will be finally thrown off, if he is able to bear the process without sinking under it. He is still under treatment, with a fair prospect that his youth and good constitution may finally enable him to recover from the effects of his injury.

XII.—Lewis Miller, Co. K, 47th Penn., was wounded by a Minié ball, which passed through the fleshy part of both thighs transversely behind but near to the bones above the upper third of each limb. Very fortunately, neither of the femoral bones was injured nor any important artery or nerve divided. Though the ball made a large opening in the course of its track, the wounds were not subsequently attended by any very great amount of pain or inflammation; on the contrary, they healed rapidly, and on the 2d of December the patient was able to return to duty in his regiment. This case affords a good illustration of the readiness with which flesh wounds sometimes heal, and of the small amount of inconvenience which may afterwards remain, though very extensive and severe.

XIII.—James Leitzinger, Co. A, 55th Penn., was wounded by a round ball which entered the inside of the left thigh high up, near the groin, a little behind the course of the femoral artery, perforated the fleshy parts without injury to the os femoris, and passed out nearly transversely on the other side, a little below and behind the trochanter major. The same ball slightly wounded the dorsum of the penis before entering the thigh. This wound was followed by very high inflammation and great constitutional disturbance—the pulse remaining at over one hundred and fifty for several days, notwithstanding all our efforts to subdue the inflammation and quiet the circulation. At last an extensive slough took place on the inside of the thigh of the wounded limb, but not connected with the track of the ball. By a free use of stimulants and nutritious diet, he passed with difficulty through this process, and then gained strength, when both the original wound and the sloughing surface began slowly to heal, and he finally recovered without any subsequent difficulties. He was a young man of very fair complexion and delicate constitution, and had been accustomed to a free use of alcoholic beverages. The wounded limb remains contracted and unavailable, to a great extent, for the purposes of locomotion. It is not very probable that he will ever regain a free use of it.

XIV.—John Hasseneau, Co. B, 6th Connecticut, was wounded by a Minié ball which struck the inside of the right thigh, high up, near the scrotum, and entering near the tendon of the adductor longus muscle passed downwards and forwards, coming out in front of the thigh about two inches above the internal angle of the base of the patella. It is quite surprising that the femoral artery should have escaped injury, as the course of the ball must have been for several inches very near to, and almost parallel with it, and finally, about the middle of the thigh, must have crossed the course of the artery by passing either between it and the bone or through the muscles outside of, and in close proximity to the artery. The os femoris was not injured. The wound suppurated freely, but notwithstanding its great extent no very high inflammation took place. The patient, however, suffered a great deal of neuralgic pain in the leg and foot. There was no loss of feeling in the lower portion of the limb at any point below the wound, so that no large nerve could have been severed, but some of the smaller nerves must have been injured, which led to the manifestation of this pain in the extremity of the limb. The wound healed slowly, though without any other anomalous symptoms, and the neuralgic pains have considerably abated ; but there is very little ability to extend the limb or to bring the foot to the ground, and it must be a long time, if ever, before the leg becomes very useful for locomotion.

XV.—Wm. F. Fink, Co. F, 47th Penn., was wounded by a round ball which struck the left thigh near the middle, directly in front, and passing upwards, outwards and backwards, came out posteriorly through the lower part of the glutei muscles near to, but above the tuberosity of the ischium on the same side. The track of the ball, in a direct line, was about fourteen inches ; measured externally, it was two or three inches more. Neither the thigh bone nor any other bony structure received injury, nor was any important nerve or artery severed. Though a wound of such a great extent was necessarily attended with a good deal of pain and soreness, yet there was no high inflammation or constitutional disturbance. The wound healed rapidly, and the limb had almost regained its original usefulness, when, on the 21st of November, he returned to duty in his regiment.

XVI.—Charles Lefler, Co. C, 47th Penn., was wounded, probably by a round ball, which entered the external side of the right thigh and passed transversely through behind the bone and in close proximity to it. The bone itself, however, sustained no injury, neither was there any laceration of important nerves or bloodvessels. The wound was a little higher up than the middle of the thigh. At the end of about ten days a pretty large slough was removed from the whole track of the ball. The discharge of pus was rather profuse, though the character of it was good, and the wound gradually healed. No adhesions were formed by the healing of the wound which interfered materially with the action of the muscles, and it is quite probable that he will finally regain a perfect use of the limb. He returned to his regiment on the 19th of November.

It may be observed that when a ball passes through a very thick muscular portion of a limb, as the thigh or calf of the leg, the free use of the limb, after the healing of the wound, is much more likely to be regained than when some of the tendinous portions are involved in the injury.

THE LEG.

XVII.—Charles Bischoff, Co. K, 47th Penn., was wounded by a grape-shot which struck the left leg about the middle of the tibia, just at the crest of that bone, but glancing off a little externally, passed round the fibula and came out posteriorly nearly opposite the point of entrance. At the first view of the point of entrance and of exit of the ball, it appeared as though it had gone directly through, and that both of the bones of the leg must have been fractured. On examination, however, I discovered that neither the tibia nor fibula had sustained any material injury. No bad symptoms, either local or constitutional, intervened, and the wound healed as rapidly as could have been expected when the perforation was made by so large a ball. It frequently happens that when a ball passes near a bone, scraping it perhaps, the bone along the track of the ball is killed, and though not fractured, exfoliation takes place before the wound heals. It is remarkable, however, in this case, that though the ball, large as it was, struck the tibia where it is covered by scarcely anything except the skin, and consequently must have grazed that bone if not the fibula also, no exfoliation of either of the bones took place, and that the wound healed as rapidly as such wounds usually heal when there is no bone involved in the injury. He returned to duty in his regiment on the 2d of December.

XVIII.—George Hahn, Co. E, 47th Penn., was wounded by a round ball which entered the left leg near the external inferior portion of the patella, and passing backwards behind the upper extremity of the fibula came out posteriorly nearly opposite the point of entrance. None of the cavities of the joint were opened, and no extraordinary swelling or inflammation was developed. The wound healed without any bad symptoms, and on the 21st of November he returned to his regiment.

This case, as well as the preceding one, affords a good illustration of the manner in which balls will sometimes pass round important parts without inflicting severe injury. In either of these cases, if the ball had passed in a straight line directly through from the point of entrance to the place of exit, the wounds inflicted, instead of being comparatively unimportant, must have been of the most serious description, and consequences of the gravest character must have ensued.

XIX.—Henry H. Hoyt, Co. D, 6th Connecticut, had received a wound from a grape-shot which had passed through the ankle-joint, from within outwards, just below the lower extremity of the tibia and fibula, injuring more or less all the tarsal bones, and of course exposing the cavity of the joint extensively. Amputation was consequently the only resource, which I performed by the flap operation about the lower third of the leg. The patient, though of a feeble constitution, was not greatly prostrated, though he was not of a hopeful disposition, and was constantly predicting that he should not recover. The appearance of the stump, however, was satisfactory till the morning of the fifth day, when it was attacked with gangrene, which gradually progressed till it reached nearly to the knee, though no line of demarcation was formed. He died on the 30th of October.

The above was the only case of gangrene which occurred in any of the wards under my care. Very few of such cases have ever occurred in this Hospital, owing, probably, to the superior ventilation it enjoys, arising from the situation of the building near the surf on Port Royal Harbor, from which a fine sea breeze is constantly blowing through it.

THE FOOT.

XX.—David C. Hayes, Co. A, 4th N. H., was wounded by a Minié ball, which passed through the left foot. The ball struck the dorsum and penetrated through to the sole of the foot, passing out nearly opposite to, but a little nearer to the toes, than the point of entrance. The ball passed between the second and third metatarsal bones near the middle of their length, taking a slight inclination downwards, as above described. It had an appearance as though the foot had just been raised to take a step when it was struck by the ball. The probe could be passed clear through the wound, following the track of the ball without difficulty, and it did not appear from the exploration which could in that way be made, that the bones were much comminuted or splintered. Cold-water dressings were kept constantly applied in the usual way, and for several days the patient appeared to be doing well. In the course of about a week, however, he complained of violent pain in the wounded extremity, which began also to swell and to exhibit other evidences of high inflammation. A streak of lymphatic inflammation extended up the limb. The patient was also affected with muttering delirium, attended by dulness of hearing. Under these circumstances it was decided to amputate the foot, which I performed by Syme's operation. On dissection of the wounded foot, it was discovered that a longitudinal fracture of one of the metatarsal bones had extended up through its upper extremity, thus opening the cavity of the tarso-metatarsal articulation, in which it was perceived that the point of the most intense inflammation existed. This discovery explained the cause of the aggravated character of the train of symptoms which had taken place, the mere passage of a ball through the foot being considered scarcely adequate to produce such a result. We were disappointed, however, in our hopes that the operation might be successful, and the patient died on the 12th of November, with all the symptoms of pyæmia.

Conclusion.

The foregoing cases have been selected from a large number of the wounded in the different wards of this Hospital which have been under my care, and I therefore present them as a record of my own individual experience in the treatment of gun-shot wounds. It would have been easy to have greatly extended them by the addition of a number of other cases possessing equal interest and instruction with those I have here presented, but I fear I have already exceeded the limits I ought to have observed in relation to space in your Journal, without reference to the exhaustion of the patience of your readers.

It is my intention in a few days to proceed North, and probably I shall not return, at least for the present, to this Hospital, which I leave, however, with much regret on account of the many pleasant and friendly associations I have formed here with those engaged in the management of it. For the present, therefore, I shall take leave of you from this place. As I am desirous, however, to do all I can to alleviate the sufferings of the victims to this wicked rebellion, I shall, as soon as my own health is a little recruited, again continue to render my professional services in some place further North, which will agree better with me; and then if I meet with anything worth recording, I shall again send it for insertion in your Journal. Till then, I shall remain Very respectfully yours, Thos. T. Smiley, M.D.

December 24, 1862.

VERY LARGE COLLECTION OF HARDENED FÆCES THROUGHOUT THE LARGE, AND THE GREATER PART OF THE SMALL INTESTINE; PERFORATION, WITHOUT THE USUAL CONSEQUENCES.

[Read before the Suffolk District Med. Society, and communicated for the Boston Med. and Surg. Journal.]

BY CARL BOTH, M.D., BOSTON.

ON the 16th of last March, I was called to a gentleman, 64 years of age, who had always been very regular in his habits, and had suffered but little, if at all, from sickness, till two or three years ago, when he had occasional vertigo and costiveness, for which he took blue pills. He was also troubled at one time with œdema of the lower extremities: a journey, he thought, cured him. During the winter of 1861–62, he complained of occasional pains in the lower part of the abdomen and pelvic cavity, with at times an attack of colic; no dejection being obtained without the aid of purgatives. In September, he suffered from a severe attack of vomiting, and was relieved by his physician, Dr. Windship, of Roxbury. Afterwards he was induced to try a homœopathic practitioner, and was treated by him three weeks; during which time he probably had peritonitis, and subsequently discharged mucus, oftentimes stained by blood. His homœopathic friend, despairing of a cure, gave up the case. The patient was enabled to go out occasionally, taking rhubarb, magnesia, &c., as cathartics. On the 19th of last January, he was attacked with a severe pain in the region of the stomach for some fifteen hours, and was again relieved by his former attendant, Dr. W. He recovered so far as to leave his bed; had a good appetite: used brandy and wine as stimulants, but was obliged to take purgatives, which always gave pain and nausea.

When I saw him, on the 16th of March, he was much prostrated. Abdomen tender; and in the left iliac region there was a tumor of considerable size: being dull there on percussion, while the other regions of the abdomen were tympanitic. Auscultation denoted powerful peristaltic motions, principally where the tumor was; the effect of a cathartic recently taken. Pulse 120. Nausea urgent, and with violent pain in the abdomen. Discharges dark brown, thin and very offensive. Urine high colored; otherwise normal. Complains of strangury. Skin dark, dry and hot, especially on soles of feet and hands.

My diagnosis was ileus. This could be produced—1st, by accumulation of fæces in the colon; 2dly, by incarceration or stricture of the intestine; 3dly, by carcinoma. I was inclined to believe, from the symptoms, that it was a stricture with accumulated fæces, and used such remedies as were indicated, but was obliged to omit internal treatment, owing to the extreme irritability of the stomach. My object was to empty the intestines at all hazards, and I relied entirely upon strong medicinal injections. After pursuing this course for two days, the dejections were less offensive, and the mucous discharges ceased; but there was no appearance in them of hardened fæces. His pulse varied from 94 to 110.

On the 30th of March, he refused all food, and his strength had been gradually declining. Before using the injections, his abdomen was tumid; but this gradually disappeared, and the swelling in the left side became more apparent. All the symptoms at that time convinced me that I had been in error, and that the case was one of extensive carcinoma; and in this opinion I was confirmed by Drs. E. H. Clarke and H. J. Bigelow. The peculiar appearance of the patient, the group of symptoms and the apparent tumor, seemed to leave no room to question our diagnosis of carcinoma. At this time he was much reduced by nausea and violent pains. Having used opiates freely on different occasions, and with little or no effect, and wishing now to relieve his very severe pain, I threw into the rectum, in milk as a vehicle, one ounce of laudanum, which I believe was of pure quality. This was not retained many seconds, and produced no narcotic effects, but was followed by some relief of pain for about twenty-four hours. The last two days he complained of an inability to discharge from the bowels, passed nothing but flatus, and died on the 18th of April.

Autopsy.—The duodenum and jejunum exhibited nothing unusual. On carefully turning back a fold of the jejunum which crossed the bladder, fæcal matter was at once seen in the peritoneal cavity; and a large handful of consistent fæces was removed from a circumscribed cavity formed by the ileum, the fundus of the bladder, and the folds of the jejunum; this cavity not communicating with the general cavity of the peritoneum. The intestines about the cavity were matted together by strong, old peritoneal adhesions. The inner surface exhibited a blackish appearance, showing beyond a doubt that the escape of fæcal matter had taken place some time before death. Connected with this cavity was a fold of the jejunum, the two extremities of which were nearly drawn together by the adhesions so as to impede the free passage of the fæcal matter through it, and just above the most constricted part were found three or four apertures from two to four lines in diameter, through which the discharge had taken place. The jejunum, ileum, cœcum, colon and rectum were completely filled with very dry and solid fæces, as if they had been there for a long period, whilst liquids were permitted to pass by. The bladder was very small, and the walls thickened, but it was otherwise healthy. The liver, spleen and kidneys were normal. The rectum was found greatly enlarged; its transverse diameter, at the largest part, when cut open, measured about twelve to fourteen inches, and was crowded with hardened fæces; the other portion of the alimentary canal not being much if at all enlarged. The mucous membrane of the rectum showed signs of chronic inflammation, while there were none elsewhere.

Remarks.—The rectum must have been enlarged for a long time, which accounts for the pains in the pelvic cavity which the patient experienced in the winter of 1861–62. The œdema of the lower extremities may have been produced by the masses in the colon pressing upon the iliac veins. Some unusual exercise taken last October, undoubtedly caused such pressure of the hardened fæces in the rectum on the bladder, as to produce acute inflammation, and subsequently the adhesion of this organ to the jejunum and ileum which were found on dissection. After that time the rectum must have been emptied, and remained thus until I used the injection of laudanum, because he had passed since October, except after taking a cathartic, nothing but clear mucus, stained often by blood; I would also not have been able to have injected easily into the rectum about two pints of liquid, or at least should have felt resistance on introducing the tube, which last I did feel when I tried to inject the laudanum shortly before death. It is remarkable, when the rectum was evacuated, that I did not succeed in emptying the colon by the injections, which were so strong that they affected his stomach.

The above case is without a parallel, so far as I can ascertain, in regard to the great accumulation of faeces and the consequences thereof; and it is to be regretted that a correct diagnosis was not made in time, as a course of cathartics and cathartic enemata would probably have saved the life of the patient, and perhaps fully restored him to health.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BERKSHIRE DISTRICT MEDICAL SOCIETY

BY FRANK A. CADY, M.D., SECRETARY.

THE last meeting of the Berkshire Medical Society was held in Pittsfield, at the Medical College, April 29th, 1863. The President, Dr. Jennings, in the chair. On motion of Dr. H. H. Childs, it was voted to admit Dr. E. G. Wheeler, of Becket, a member of the District Society. The report of cases being called for, Dr. WHEELER reported the following:—

Abscess communicating with the Gall-Bladder.—Was called, Sept. 23d, 1862, to see Timothy Snow, of Becket, 79 years of age, because of a hard, red tumor, which had appeared about an inch and a half above the umbilicus and half an inch to the right of the median line. The patient had suffered pain in the right side, extending across the epigastrium, for two or three months previously. Had taken severe cold, after profuse perspiration, caused by unusual physical exertion, about the middle of June, and thought he began to feel the pain directly after that time, yet continued to perform an unusual amount of labor for a man of his age, through the haying season. The pain in his side was always increased by exertion. At the time of Dr. W.'s first visit, the general health of the patient was considerably impaired; tongue covered with a yellowish-brown coating; pulse rather slow and weak; slightly jaundiced tinge of skin and conjunctiva; loss of appetite and general prostration. On examining the tumor, Dr. W. found it to be of the size of a pigeon's egg, hard, red, and slightly raised above the surrounding surface. It had the appearance of an ordinary abscess in its early stage. Prescribed five-grain doses of blue mass, night and morning, for two days, to be followed by sulphate of magnesia; and emollient poultices to be applied to the tumor. Saw him again Sept. 29th. Found the symptoms improved. Tongue clear; yellowness had disappeared, but the patient still complained of weakness and had no appetite. The abscess had increased in size, was more prominent, and the pain had changed from a "heavy aching" to a sharp, darting sensation. He had chills at irregular intervals. Fluctuation was distinctly manifest, but Dr. W. did not decide to make an opening, although at that time he did not suspect the real nature of the abscess. Directed quinine and salicine in alternate doses, and continuation of the poultices. Oct. 3d, found the patient much improved in general health, with some desire for food. Abscess soft and pointed; integuments thin and of a purple color. Dr. W. made a free puncture, and a large quantity of thick, yellow pus, with streaks of a greenish cast, was discharged, but no peculiar odor was noticed. Directed the poultices to be continued; also the administration of quinine, brandy and a generous diet. From that time (as he had heard from the family) the patient improved till he had nearly regained his usual health, and Dr. W. did not expect to hear anything more of the abscess; but, Feb. 16th, four and a half months after opening it, he was again called to the patient. On arriving, he learned that the puncture had nearly closed, but a fistulous opening had remained, from which there had been a small, but "constant discharge of almost colorless matter." For a few days previous to his being called, there had been redness, pain and tenderness about the orifice, and that morning he had found, on the compress and in his clothing, nine gall-stones. From this period to that of his last visit, April 15th, 1863, thirty stones in all had passed through this same opening. The patient continued comfortable, and was able to perform a considerable amount of labor. Dr. W. remarked that the case possessed a peculiar interest, as the symptoms of hepatitis, previous to the formation of the abscess, had been so obscure and the general functions so slightly interrupted, and also from the absence of that horribly fœtid odor which is usually emitted in the matter discharged from an hepatic abscess.

Dr. W. also referred to a case, in which the liver was adherent to the diaphragm, which was perforated, and the matter made its way through the lungs to the bronchi, and was discharged by the mouth. In this case, a large quantity of greenish-yellow fluid, mixed with pus, of an exceedingly offensive odor, was expectorated. The abscess was very large. The sac is still preserved in the Museum of the College of Physicians and Surgeons of New York.

Dislocation of the Humerus into the Axilla.—Dr. DUNCAN, of Williamstown, reported a case of dislocation of the humerus into the axilla, which he was unable to reduce by the usual method, because of the resistance, as he thought, of the deltoid muscle. He afterwards succeeded in so doing, by fixing the scapula, and drawing the arm directly upwards.

Dr. GREEN said, that while he did not ignore resistance induced by muscular contraction, he believed the chief obstacle to be overcome was the capsular ligament; and that in experiments on the subject, he had found, where extension was made in the direction recommended by surgical authorities, both in luxations of the humerus and femur, that the head of the bone did not, as a rule, return readily through the opening by which it made its escape, and that by the great extension required, the laceration was generally enlarged, or the ligament ruptured in another place.

Double Convergent Strabismus.—Dr. GREEN reported the case, which was believed to be congenital, and was entirely relieved by dividing the internal recti muscles. Also a case of parotid tumor, removed by him; and referred to the solubility of such tumors in alcohol.

Bite of a Dog—Treatment of Hydrophobia.—Dr. LAWRENCE, of Adams, reported a case of the bite of a dog, which occurred some three months ago. It gave no trouble until within a few days, when the old cicatrix grew painful, tender, and swollen; the pain and redness extending up the arm to the shoulder. The question of a specific poison in the case, was discussed by different members of the Society.

Dr. Childs referred to the fact of having himself suffered from hydrophobia some years since. Believed he was cured by twenty-grain doses of calomel, repeated every four hours, till an hundred grains had been taken, when he was relieved. The poison, in his case, was conveyed by a scratch from a young lady, who was laboring under hydrophobia, and who died two days after inflicting the wound upon him.

Chorea.—Dr. Smith reported three cases of chorea, two of which had followed rheumatism. In his experience, this disease had generally been preceded by rheumatic inflammation. These cases were all treated with actea racemosa, as the chief remedial agent. Veratrum was given in one of the cases, in which rheumatism had existed.

Dr Lawrence had been in the habit of relying upon Fowler's solution of arsenic in chorea, with invariably good results.

Dr. Green had used carbonate of iron, and the result of treatment with that drug had, in his experience, been entirely satisfactory.

Dr. Duncan had relied chiefly on iron, in the treatment of chorea, and asked whether others might not have failed to obtain relief through this remedy, because of the impurity of the drug; stating that he had often analyzed the carbonate of iron obtained from the shops, and had seldom found any that was pure.

Puerperal Convulsions.—Dr. Cady reported the following case of puerperal convulsions. Was called at 9 o'clock, P.M., April 28th, 1862, to see Mrs. V. C., 22 years of age, eight months advanced in first pregnancy—suffering at the time, as she had been for two hours previous, with severe pain in the epigastrium, extending to either side, when taking a full inspiration. Prescribed ten grs. Dover's powder, and a mustard paste to be applied over the epigastrium. Was again called at 11 o'clock; found the pain more intense, continuous, with frequent exacerbations of a spasmodic character. Gave gr. iss. pulv. opii. with gr. iii. camphor, which she vomited after about fifteen minutes. Waited a half hour, then gave gr. ii. opii. with grs. iv. of camphor, which were retained. In forty minutes after taking second powder, she began to have slight jerking of the muscles, which was soon followed by a severe tetanic convulsion; this lasted fifteen minutes, and left her in a completely comatose state. In this condition she remained till 1 o'clock, when she had another convulsion, of much greater severity than the first. The coma continued, pulse 150 per minute; some rigidity of the extremities remained after the spasm had ceased. The third convulsion occurred at 2½ o'clock, not unlike the preceding, except an increased lividity of the surface, and the respiration more stertorous. At 4 o'clock 10 m., she had a fourth, *very* severe, after which she was bled from the arm twenty ounces. Fifth spasm occurred at 5½ o'clock, labor-pains occasionally between spasms. The os high in the pelvis, slightly dilated. Another severe convulsion, preceded by spasms of the muscles of the eyes and extremities. 6½ o'clock, another, lasting four minutes. At fifteen minutes before 7 o'clock, another, very slight. 8 o'clock, after labor-pains and great restlessness, another spasm of great intensity; dilatation progressing slowly. 8 o'clock 45 m., severe convulsion, preceded by frequent labor-pains. 9 o'clock 30 m., another; respiration suspended for three minutes after convulsive action had ceased. At 10½ o'clock, another and severe spasm ; labor-pains slight. 10 o'clock 45 m., spasm, frothy mucus pouring from mouth. After the subsidence of the convulsion, Dr. C., with some difficulty, applied the forceps, although the dilatation was slight and the os high in the pelvis. Strong traction was made for two hours. Pains increased in frequency (with constantly-recurring spasms), but not in efficiency. Not succeeding in removing the child with forceps, the head was perforated, and the patient delivered. The child bore evidence of vitality having been extinct for several days. No convulsions occurred till 5 o'clock, P.M., when they returned in a mild form, and continued at irregular intervals till 11 o'clock, at which time they ceased. After 48 hours, the patient became conscious. Although she did not recover her memory for nearly a month, restoration was ultimately complete.

The July following, Mrs. C. again became pregnant, and went through the first six months without more constitutional disturbance than is usual in such cases. After that period her digestion became somewhat impaired, the lower extremities œdematous, and subsequently the hands, and even the face, began to swell. Under the influence of diuretics, mild cathartics, tonics and a generous diet, the dropsical effusion soon disappeared, and during the last months of pregnancy no patient whom he had ever attended appeared in better condition than she.

Was called to attend her through her second confinement, 11 o'clock, A.M., April 21, 1863 ; had moderate pains at intervals of fifteen minutes, which gradually increased in severity, and the labor (which was not severe) terminated at 2 o'clock 15 m., P.M.

The patient remained comfortable until 4 o'clock, A.M., of the 22d, when she began to complain of pain in the head, which continued till 6 o'clock, when she had a slight spasm, lasting about four minutes. Was quiet and conscious for nearly an hour ; then complained of "headache" and uncomfortable sensation in the epigastrium. At 7 o'clock, had a convulsion of greater severity and length than the first. Was delirious for twenty minutes after the termination of the spasm. The tongue had now become slightly swollen, the respiration slow and heavy, and in this condition she remained till 8 o'clock 10 m., when a severe convulsion came on. The head was now drawn back, the hands clenched, and the face more livid than in any previous spasm, and all the muscles of the body rigid. After its subsidence, she was conscious for a few minutes. At 8 o'clock 45 m., another of short duration, followed by coma, lasting twenty minutes. At 9 o'clock 20 m., another spasm, followed by complete coma. The next convulsion came on at 9 o'clock 55 m., lasting nine minutes. Remained comatose twenty minutes, then became wildly delirious till another convulsion ensued (at 10½ o'clock), after which she became comatose. From this time the spasms recurred at more distant intervals, and with less severity, till 3 o'clock, P.M., when they ceased altogether. The respiration became easier, the surface less livid, the pulse slower and more regular. In this condition she remained till 5, A.M., of the 23d, when the breathing grew stertorous, the pulse frequent, and the pupils less susceptible to light. At six o'clock she died.

In this case the convulsions always followed uterine contraction (or after-pains), and the treatment of the case was intended to diminish the disturbance thus produced. It consisted in removal of all coagula from the uterine cavity, enemas, containing each one half a grain of morphia, every three hours, cataplasms over the epigastrium, counter-irritation to the upper part of the spine, and cold applications to the head. Venesection affording no relief in the previous attack, was not resorted to in this case.

On motion of Dr. Miller, it was resolved that a committee of finance be appointed, to aid in making arrangements for the annual dinner. The following were elected:—Dr. Frank A. Cady, Chairman; Hon. Thos. F. Plunkett and Dr. H. H. Childs.

The following persons were appointed a Committee of Arrangements for the anniversary dinner:—Drs. C. T. Collins, Holcomb, Miller, A. M. Smith, Lawrence, Green, Cady.

Voted, That the Committee meet on the Wednesday preceding the next meeting of the Berkshire District Medical Society.

Voted, That the Secretary of the District Medical Society notify the members of the Committee of the time of said meeting.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JUNE 25, 1863.

MASSACHUSETTS MEDICAL SOCIETY.—The annual meeting of the Massachusetts Medical Society, which took place at Pittsfield, on the 17th inst., was one of the most agreeable anniversaries which have yet occurred in its annals. A large number of Fellows availed themselves of the occasion to escape from the daily routine of professional life, and spend a brief holiday amidst the beautiful scenery of Berkshire. The citizens of Pittsfield spared neither labor nor expense in providing for the wants of their guests, and in contributing to their entertainment. Many of them opened their doors for the accommodation of the large number of Fellows who were unable to obtain lodgings in the hotels, and several of them entertained the members at their houses on the evenings of the 16th and 17th. To the Committee of Arrangements the Society is largely indebted for their successful management of all the details relating to the meeting. A highly interesting exhibition, consisting chiefly of calisthenic exercises, was given to the Fellows by the young ladies of the Maplewood Institute, by the courtesy of the Rev. Dr. Spear, the able head of the establishment. The Messrs. Tilden, whose medicinal preparations are so extensively and favorably known, invited such of the members as were able to remain after the meeting, to visit their extensive laboratory and gardens at New Lebanon, and to witness the process of manufacture of vegetable extracts *in vacuo*.

In presenting his annual report as Treasurer, Dr. GOULD announced his intention of not becoming again a candidate for the office. Much regret was expressed at the retirement of an officer to whom the Society has been for more than nineteen years indebted for the most faithful and efficient services, and the thanks of the Councillors were unanimously tendered him. The Treasurer represented the financial affairs of the Society to be in an improved condition, and anticipated an early liquidation of the debt under which the Society has labored for several years past.

The following officers were chosen for the ensuing year:—

President.—Dr. Josiah Bartlett, of Concord.
Vice President.—Dr. Ebenezer Alden, of Randolph.
Corresponding Secretary.—Dr. B. E. Cotting, of Roxbury.
Recording Secretary.—Dr. W. W. Morland, of Boston.
Treasurer.—Dr. Francis Minot, of Boston.
Librarian.—Dr. W. E. Coale, of Boston.
Orator.—Dr. J. Mason Warren, of Boston.
Anniversary Chairman.—Dr. H. J. Bigelow, of Boston.
Committee of Arrangements.—Drs. W. E. Coale, Ezra Palmer, W. E. Townsend, Anson Hooker and Francis Minot.

The meeting of the Society was held on the following day, at 10 o'clock, in the Berkshire Medical College. Delegates from the State Societies of New York, Connecticut and New Jersey were present, and delegates to the societies of all the New England States, of New York and New Jersey were appointed. Dr. H. R. Storer, of Boston, read an interesting paper on the Employment of Anæsthetics in Obstetric Surgery and Medicine; and Dr. Swinburne, of Albany, N. Y., presented a paper on the subject of Ambulance Corps, which was referred to the Councillors.

At 12 o'clock, Dr. MORRILL WYMAN, of Cambridge, pronounced the annual discourse, an able and eloquent vindication of the claims of medicine to the confidence of the public, and which was listened to with deep attention and interest.

The dinner, which took place at West's Hall, at 2½ o'clock, was tendered to the Fellows of the Society by the citizens of Pittsfield, and was all that taste and liberality could devise. About two hundred gentlemen were seated at the tables. Dr. H. H. Childs, of Pittsfield, presided as Anniversary Chairman. Among the invited guests we noticed Dr. Alden March, of Albany, President of the American Medical Association; Dr. Hopkins, President of Williams College; Rev. Dr. Todd, of Albany, and many others.

Before leaving the table the following vote was unanimously passed:

"*Resolved,* That the thanks of the Massachusetts Medical Society be presented to the Fellows of the Berkshire District Society, to the physicians, Principal of the Maplewood Young Ladies' Institute, and citizens of Pittsfield, for their cordial welcome and generous hospitality; which, in connection with the pure air and unsurpassed mountain scenery of this delightful region, have made this one of the most pleasant and interesting of our annual gatherings."

Most of the Fellows returned to their homes immediately after the dinner. A few, more fortunate, were able to linger for a day or two in the enjoyment of this romantic region.

POSITION OF THE HEAD IN TURNING.—We have received the following letter respecting the case of ruptured uterus reported in a recent number of the JOURNAL by Dr. Fifield, from a gentleman well versed in the theory and practice of obstetrics.

MESSRS. EDITORS,—My attention has been called to an article in your JOURNAL, dated May 28th, detailing a case of ruptured uterus, resulting in the death of both mother and child. The writer informs us that, while "the head occupied the pelvis," the trunk being already born, he found himself unable, even with a force sufficient to fracture the lower jaw, as well as "the right and left orbits," to produce flexion, so as to bring down the forehead; "but a slight force applied to cause the descent of the occiput was immediately successful"; and he is hence led to entertain a doubt whether, "in breech cases and cases of version," it were not more natural and better, where the head comes to occupy the pelvis, that the occiput should descend first rather than the chin!

It is much to be regretted that he did not tell us which extremity of the occipito-mental diameter (5½ inches in length) was in advance when he made his ineffectual efforts to bring down the chin and forehead. If the occiput, it is not strange that it persisted in maintaining its vantage ground, for it is not easy to invert, or, as Dr. Meigs has it, to "see saw," a diameter of 5 to 5½ inches in a pelvis whose longest diameter does not exceed 4½ inches. But, if the chin entered the pelvis first, and had descended, so that "the head occupied the pelvis," and, in that state of the case, the occiput was indeed *easily* brought down so as to be born before the chin, it is assuredly a most remarkable fact, and well worth relating. But it would still be only an *isolated* fact; and, until it can be made to appear that the head plus the neck and shoulders will pass through and out of the pelvic cavity more easily than the head *per se*, it will hardly suffice to reverse and revolutionize the rule of practice in such cases already established. I cannot help imagining that, at the time when the efforts were made to bring down the chin, it was actually higher up in the pelvis than was the occiput—and, if so, that would furnish a sufficient reason for their having proved unavailing.

It seems to me that a little reflection must convince any one that the most favorable position for the head to pass in a footling case is that of the chin resting on the sternum, and that any deviation from this is, to say the least, unfortunate. ⁂

New Professors in Harvard University.—By a recent vote of the Corporation, Dr. Calvin Ellis, of this city, has been appointed Adjunct Professor of the Theory and Practice of Physic in the Medical Department of Harvard University. A more fortunate selection than this for the College certainly could not have been made, and we are confident that it will prove completely satisfactory both to the profession and to the large body of medical students with whom the new professor is so popular. Dr. Ellis has had a large experience in teaching as Assistant in Pathological Anatomy, and shown himself particularly adapted to impart to others the varied knowledge he possesses.

Prof. Walcott Gibbs, of New York, has also been chosen to fill the Rumford Professorship, made vacant by the resignation of Prof. Horsford, and to take charge of the Chemical Department of the Scientific School.

The Sanitary Reporter.—We have received the first number of a paper published under this title for gratuitous distribution among Soldiers' Aid Societies and persons who take an interest in the objects and works of the Sanitary Commission. It is intended as a means of promoting the comfort, health and efficiency of our Army and Navy, and is under the direction of the Western Department of the United States Sanitary Commission at Louisville, Ky. It contains interesting reports of the condition of our soldiers in the Western States and Mississippi Valley, and promises to be of great advantage to the interests of the Commission.

At the 52d annual meeting of the Rhode Island Medical Society, recently holden, Dr. Henry E. Turner, of Newport, was chosen *President*, and Drs. J. Jervis Smith, of Chepachet, and Otis Bullock, of Warren, *Vice Presidents;* Drs. B. Lincoln Ray, of Providence, *Rec. Secretary ;* Chas. W. Parsons, of Providence, *Cor. Secretary ;* J. W. C. Ely, *Treasurer;* Timothy Newell, *Librarian and Cabinet Keeper*, Northern District, and T. C. Dunn, do. Southern District; David King of Newport, Jos. Mauran and J. W. C. Ely of Providence, J. H. Eldredge of E. Greenwich, Wm. A. Shaw of Wickford, Sylvanus Clapp of Pawtucket, Geo. W. Jenckes of Woonsocket, and Job Kenyon of Coventry, *Board of Censors ;* Mauran, King, Bullock, Collins, Snow, *Registration Committee;* C. W. Parsons, J. Ray and Ely, *Committee on Publication;* Baker and Collins, *Auditing Committee ;* Ely and B. L. Ray, *Dinner Committee.* The annual address was delivered by Dr. David King. No prize was awarded by the Trustees of the Fiske Fund.

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, June 20th, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - - -	28	24	52
Ave. mortality of corresponding weeks for ten years, 1853—1863,	37.3	32.9	70.2
Average corrected to increased population - - - -	00	00	77.29
Death of persons above 90 - - - - - - - -	1	0	1

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
10	1	1	3	0	1	3	0

Communications.—Papers have been received from Prof. Thos. D. Mitchell, of Philadelphia, and Assistant Surgeon Isaac Smith, Jr., U. S. Marine Hospital, New Orleans, La.

Journals Received.—American Homœopathic Review, June, 1863.—Cincinnati Medical and Surgical News, May and June, 1863.—Edinburg Medical Journal, May, 1863.—The Chemist and Druggist, Vol. iv., No. 45.—Philadelphia Medical and Surgical Reporter, Vol. x., Nos. 4, 5, 6 and 7.—Dental Register of the West, May, 1863.—London Lancet, April 4, 11, 18, 25, May 2, 9, 16, 23, and 30.—American Medical Times, Vol. vi., Nos. 22, 23, 24 and 25.—San Francisco Medical Press, April, 1863.—Medical News and Library, June, 1863.—The Cincinnati Lancet and Observer, June, 1863.—Chicago Medical Journal, June, 1863.—Journal de Médecine de Bordeaux, May, 1863.—The Buffalo Medical and Surgical Journal, June, 1863.—The Scalpel, Vol. 12, No. 3.—The Sanitary Reporter, Vol. i., Nos. 1 and 2.

Married,—In this city, June 18th, Dr. J. McLean Hayward to Miss Katherine H. Cobb, both of Boston.—At Dedham, June 11th, George I. Townsend, M.D., of South Natick, to Miss Lucy M. Richards, of Dover.

Died,—Fell, at the battle of Chancellorsville, Va., May 3d, 1863, Surgeon C. A. Hartmann, of Cleveland, Ohio.—At Clinton, La., on the 21st of April, of typhoid fever, William Henry Jewell, son of Dr. Wilson Jewell, of Philadelphia.—In Philadelphia, June 3d, John Watson, M.D., of that city.

Deaths in Boston for the week ending Saturday noon, June 20th, 52. Males, 28—Females, 24.—Accident, 1—apoplexy, 2—congestion of the brain, 1—disease of the brain, 1—inflammation of the brain, 1—bronchitis, 1—cancer, 2—consumption, 10—croup, 1—dropsy of the brain, 1—dysentery, 1—epilepsy, 1—fever, 2—scarlet fever, 1—typhoid fever, 3—gastritis, 1—disease of the heart, 2—infantile disease, 4—intemperance, 3—disease of the kidneys, 1—inflammation of the lungs, 3—old age, 2—premature birth, 1—puerperal disease, 1—scalded, 1—sore throat, 2—unknown, 2.

Under 5 years of age, 19—between 5 and 20 years, 3—between 20 and 40 years, 16—between 40 and 60 years, 9—above 60 years, 5. Born in the United States, 31—Ireland, 18—other places, 2.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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ON ARTIFICIAL DILATATION OF THE OS AND CERVIX UTERI BY FLUID PRESSURE FROM ABOVE; A REPLY TO DRS. KEILLER OF EDINBURGH, AND ARNOTT AND BARNES OF LONDON.

By Horatio R. Storer, M.D., of Boston, Surgeon to the Pleasant St. Hospital for Women.

[Read before the Suffolk District Medical Society, May 30th, 1863, and communicated for the Boston Medical and Surgical Journal.]

Those who are interested in obstetric surgery can hardly have failed to notice a controversy, for many months past carried on through the more important British journals, involving the question of priority as to suggestion and practical application in a matter of much importance—namely, the dilatation of the cervix uteri *from above*, as a means of diagnosis and treatment.

As one of the original claimants of the suggestion referred to, and, as I supposed, till within a few weeks, the only one with any legitimate ground for such claim, I have felt some little interest in the result. Not caring, however, again to enter the controversial arena, I should continue to remain a passive spectator, did not a more careful examination of the whole matter, to which I have been led by some recent allegations, compel me to break silence in simple justice to one of my opponents. It will be found, also, that this communication will not be without its value as bearing upon and instancing the law which should govern physicians, as all other scientific men, in the settlement of similar disputes.

Immediately on entering practice, it became evident to me that the great field for advance in obstetric therapeutics was *the interior* of the uterus—an opinion that was daily strengthened during the intimate relations to which I was admitted by Prof. Simpson in 1854–55.

At that time the sole means, at all safe and reliable, of directly reaching the interior of the unimpregnated uterus, was by the use of expansible tents, then only made of sponge, first suggested for this purpose by Simpson in 1844.* It is true, that for the induction of premature labor, for which the method to be considered was first proposed to the profession by both Dr. Keiller and myself, and for which its use is now urged by such competent authority abroad, there had been many measures suggested and practised—all of them, however, acting either secondarily or by reflex action, as do galvanism, mammary irritation, puncture of the membranes, their separation from the uterus by bougies, the injection of water or air, an agent here so dangerous, or by the uterine sound, and also, there seems to me good reason for believing, the so-called oxytoxics, as ergot of rye; or by a stimulating or dilating force applied and first acting from below.

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* Edinburgh Monthly Journal of Medical Science, Aug. 1844, p. 734. Obstetric Works, Vol. i., p. 125, Scotch edition; p. 128, American do.

These remarks apply with equal force to all methods that had then been proposed—to those of Hamilton and Hopkins; to the flexible catheter left in the cavity of the uterus by Merrem, Krause and Simpson; to the vaginal and cervical plugs and dilators of Brünninghausen, Osiander, Von Busch, Hüter, Gariel and Braun; to the carbonic-acid douche, suggested by Brown-Séquard and so fatal in the hands of Scanzoni and others; and to the water douches, of Kiwisch, applied to the vagina, and of Schweighaüser and Cohen, to the uterine cavity. These several means, while they were applicable but partially and with varying success to the pregnant uterus, were wholly unfitted, with the exception of sponge tents, for opening up that which already contained no fœtus; and for this the elastic bougies of McIntosh and the unyielding ones of Simpson, the spring-knife of the latter, the hollow tubes used by Wakley for urethral stricture and adopted from him by Baker Brown, and the instruments of Rigby, Graham Weir, Osiander, Busch, Krause and Jobert, with expanding metallic blades, are either insufficient or attended with too much hazard.

Caoutchouc bags or sacs, distended with air, had been proposed some years previously by Gariel,* for the treatment of displacements of the uterus by pressure from below, and for plugging the vagina in cases of hæmorrhage. He had also suggested their possible introduction into the cervix, not, however, through it, for the purpose of overcoming stricture of that canal, and had even asked, "if this property of the bulbous air sound could not be turned to advantageous use in inducing premature labor?" here referring, however, to their use in the vagina, as had already been suggested by Hüter and Braun. The proposals of Gariel, however, like those of Braun, were attended with singularly unfortunate results, Breit and others reporting a mortality of six patients out of fourteen.†

To sponge tents applied to the cervix there attaches, as I have already intimated, various important objections. They are readily acted upon chemically by the uterine and vaginal secretions, and from their organic character quickly undergo putrefactive decomposition, subjecting the patient to a certain amount of risk from such possible absorption as is hereby implied. They act at times with great rapidity and force, and where the tissues are morbidly friable, if not very carefully made, they may produce unintentional or dangerous tension and laceration.

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* Gazette des Hôpitaux, 1849, No. 141.

† Göschen's Deutsche Klinik, Berlin, 1853.

From direct experience of these several dangers, it became my aim to find, if possible, a substitute for sponge in the dilatation of the cervix, and in May, 1855, in a paper read before the Medico-Chirurgical Society of Edinburgh, I proposed the use of tents prepared from the bark of our indigenous slippery elm.* Shortly after, during the publication of Dr. Simpson's Memoirs, I had again occasion to refer to the disadvantage of sponge under certain circumstances,† and at still greater length in a paper presented during the fall of the same year.‡

The use of elm tents in my own hands and those of others who have communicated with me upon the subject, proved the agent greatly superior to sponge in those cases where a slow and moderate action is desired, as, for instance, in mechanical dysmenorrhœa and certain forms of sterility; and as yet I know of nothing that will here better answer the indication, although during the course of my experiments in this direction I have tried a variety of other substances, as althea root, &c., among them the root of gentian, afterwards made the basis of a memoir upon mucilaginous tents by an English Surgeon, Dr. Aveling, of Sheffield,§ in apparent ignorance of his having been anticipated by my suggestion of three years before.

Steadily pursuing these efforts towards the solution of the interesting problem proposed, I again called the attention of the profession to its importance by a paper published in Philadelphia early in 1859, in which were pointed out the several indications for artificial dilatation of the cervix uteri, and the several dangers attaching thereto, alike in the induction of premature labor, the assistance of the progress of accidental abortion and of labor at the full time, the exposure of the uterine cavity for the purposes of diagnosis and treatment, both in diseases puerperal and non-puerperal.‖

During the preparation of this paper, duly appreciating, as will be apparent from its perusal, the actual and relative value in the assistance or induction of labor, of the several elements of action involved—namely, dilatation of the cervical canal, detachment of the membranes from the walls of the uterus, and the prolonged preservation intact of the bag of waters—I had frequent conversations upon the subject with my friend Dr. Nathan Hayward, of Roxbury, now Surgeon of the 20th Mass. Regiment, and at that time associated with me in the conduct of the Eustis St. Dispensary. With his assistance, I contrived an instrument designed to combine the various indications just referred to, and this was used in practice upon the first favorable case that presented itself to us, on April 13th, 1859. The operation was entirely successful; labor was prematurely induced at the eighth month in a woman who had four times previously undergone craniotomy, and a living male child was delivered. The case was the more interesting to us from the fact that both Dr. Hayward and myself were present at her last confinement; I had turned and delivered the trunk, but it was found absolutely necessary to lessen the head from below before it could be made to pass.

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* Association Med. Journal, London, May, 1855, p. 446; Glasgow Med. Journal, April, 1856, p. 116; Braithwaite's Retrospect, Jan., 1857, p. 247, &c.

† Preface to Simpson's Obstetric Works, Sept., 1855, p. 16.

‡ This Journal, Nov., 1855; Gardner, Causes and Treatment of Sterility, 1856, p. 148.

§ Medical Times and Gazette, June, 1858, p. 653.

‖ "The Use and Abuse of Uterine Tents." American Journal of the Med. Sciences, Jan., 1859, p. 57.

The proposal of the measure now resorted to, as I supposed, for the first time, was made at considerable length under the name of "the uterine dilator," and the case reported in July, 1859.* I then stated that the instrument, introduced within the cavity of the uterus, produced its action in a threefold manner: "reflexively, as a foreign body; reflexively and directly, by separating the membranes from the uterine walls; and directly, as a fluid wedge, by dilating the os; in each of these three respects, its effect being in proportion to the amount of distension applied. It should be noticed that this dilatation," I also added, "is *from above downwards*, while the tent dilates from below upwards."† I referred to the similarity of this instrument to one suggested for the female urethra by Spencer Wells, of London, some months previously,‡ which in its turn had been taken from a modification by Thompson of James Arnott's urethral dilator, so forcibly brought forward as long back as 1818, both by himself§ and his brother Neil,‖ and shortly after by Ducamp in a memoir that received much approbation from the French Academy. I mentioned, also, the curious fact in the history of the various means that have been proposed for dilatation of the uterus, that they have all, without exception, been based, directly or indirectly, upon some method previously in use for the treatment of strictures of the male urethra.

I have thus plainly stated my own position in relation to the plan of dilating the uterus by fluid pressure acting from above, and have shown the gradual and successive steps by which I arrived at the idea and its development. The medium employed for dilating my sac was water; to the dangers of air used for this purpose, as it has been by others who have taken part in this controversy, I then called attention, as I shall again do in the course of the present communication.

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* Am. Jour. of the Med. Sciences, July, 1859, p. 107; North Am. Med.-Chir. Review, July, 1859; Essay on Criminal Abortion in America, Phila., 1860, p. 69.

† Loc. Cit., p. 112.

‡ Medical Times and Gazette, July, 1858, p. 84.

§ Treatise on Urethral Stricture, &c. &c.

‖ Elements of Physics, p. 532.

Now as to opposing claims, which I shall endeavor to state as fairly, even at my own expense.

In March, 1859, some six weeks earlier than the date upon which my own patient was confined, Dr. Alexander Keiller, of Edinburgh, a gentleman of great obstetric knowledge and skill, to whose ingenuity in another matter, the suggestion and application of the vaginal stethoscope, I chanced to call attention in the very paper containing the description of my own dilator—having independently conceived of the same idea, put it into successful practice in the presence and with the assistance of our mutual friend, Dr. Graham Weir. The case was immediately reported to the Obstetrical Society of Edinburgh, and was mentioned by Dr. Keiller in conversation and at his lectures, but strangely enough none of the details were put in print until the publication of a summary of the Society's Records, on the very day of my own paper, namely, the 1st of July, 1859.* This was a brief abstract of Dr. Keiller's remarks, by the Secretary; his own first publication upon the subject, with the exception of three short and bitter controversial notes,† in the latter of which he did indeed quote from the Proceedings of the Obstetrical Society already referred to, was not till a period of four years afterwards,‡ although the profession had on more than one occasion been promised an immediate communication.

On April 16th, 1859, just three days after my own application of dilatation by fluid pressure from above to actual practice, Mr. Jardine Murray, of Brighton, England, a former Resident Surgeon at both the Royal Infirmary and Maternity Hospital of Edinburgh, introduced an India-rubber air pessary, in a case of hæmorrhage from placenta prævia, into the cavity of the uterus, with the double intention of thus controlling the hæmorrhage and of effecting dilatation of the os. Mr. Murray very honorably acknowledged his obligation for the idea to his former instructor, Dr. Keiller, by whom, however, he was bitterly assailed in the letters above referred to; and his case is undoubtedly entitled to its claim of being the first of the kind put on record by publication, and the first in which the dilator seems to have been used as an intra-uterine plug for arresting hæmorrhage. This publication was in June,§ a fortnight before either my own views or those of Dr. Keiller appeared in print.

In April, 1861, Dr. Robert Barnes, of London, well known for his contributions to obstetric literature, brought the subject we are considering before the Obstetrical Society of London,‖ his first application of the method to practice having been with a case of placenta prævia, in April, 1860, just a year subsequently to those of Dr. Keiller and myself. His paper was received with marked attention, and the discussion which followed is well worthy of general perusal. Dr. Barnes discarded, as I had already insisted should be done, the use of air for purposes of uterine dilatation, and claimed, as I had done, that water was the only allowable medium—going on to assert that by this means "the practitioner was enabled to deliver almost at will, not only on a fixed day, but at a predetermined hour; a power that gives us control over cases of convulsions, obstinate vomiting, exhaustion from disease or hæmorrhage, much needed and not hitherto possessed."*

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* Edinburgh Med. Journal, July, 1859, p. 84.

† Med. Times and Gazette, June 18th, 1859, p. 639; Ibid., July, 1859, pp. 24, 75.

‡ Read before the Obstetrical Society of Edinburgh, Aug. 6th, 1862; abstract from the Society's Records printed in Edinburgh Med. Journal, February, 1863, p. 763, and the paper itself in the same Journal, March, 1863, p. 782.

§ Med. Times and Gazette, June 11th, 1859, p. 506.

‖ Transactions of the Obstetrical Society of London, Vol. iii., 1862, p. 107.

In a subsequent paper, a year later, upon "the new method of inducing premature labor at a predetermined hour," Dr. Barnes seems more decidedly to claim the proposal as originally his own,† whereas, in fact, he but modified the shape of the dilating sac, making it "fiddle-shaped," so as to act both from above and below, a nicety that in practical application possesses little or no advantage over the original form.

Finally, during the last month,‡ there appeared a communication from Dr. James Arnott, of London—to whose celebrity in former years for his various applications of fluid pressure and congelation to medical and surgical practice, I have already alluded—calling our attention, by name, to what he considers forgetfulness or intentional omission. The article to which I now refer is nearly identical with a letter by the same gentleman,§ shortly after our first proposals in 1859.

It will have been noticed that in my own first communication, I acknowledged the fact that the instrument then proposed, like that suggested for the female urethra by Spencer Wells, was really based upon Arnott's dilator for the male.‖ Dr. Keiller, in his paper of March last, allows that his own conception of the idea was from the instrument of Mr. Wells,¶ and Dr. Barnes also acknowledges that the original suggestion of fluid pressure for purposes of dilatation was by Arnott.** So far as I can ascertain, however, though Arnott in the various publications to which he has lately referred did recognize the real action of the fluid wedge, by which the distended membranes produce dilatation in labor, his application of the theory was to the os *from below*, or in the course of the cervix, if this canal remained uneffaced, and not *from above it;* an operation of entirely different nature, based upon an entirely different principle, and no more to be claimed by Arnott than those of Braun and Brünninghausen.

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* Medical Times and Gazette, April, 1861, p. 456.

† Ed. Med. Journal, July, 1862. It is to this paper that the profession are probably indebted for the actual publication of Dr. Keiller's views upon the subject, some nine months later, they being professedly in answer to Dr. Barnes' claim.

‡ Ibid., April, 1863, p. 968.

§ Med. Times and Gazette, July, 1859, p. 69.

‖ Am. Journal of the Medical Sciences, July, 1859, p. 108.

¶ Ed. Medical Journal, March, 1863, p. 784.

** Trans. of Obst. Soc. of London, Vol. iii., 1862, p. 120.

Having thus stated all the facts in the case, it will be seen that, putting aside the measures of Hüter and Braun for inducing premature labor by dilatation of the vagina as entirely foreign to the subject, it is to Arnott and Gariel that belongs the credit of first suggesting the possibility of dilating the cervix uteri by fluid pressure directly applied to that canal, in these instances from below; that in dilating the uterus by fluid pressure from above, although my instrument was already prepared for the purpose, Keiller really anticipated me by a few days in actual practice; that we both immediately made our discovery known to medical friends and thus to the profession, and that our respective publications in print were made on the same day, in Philadelphia and Edinburgh. As regards priority of publication, however, Mr. Murray certainly forestalled us both, his case being the first thus recorded. Personally, I do not hesitate thus far to yield the credit to Dr. Keiller, merely claiming for myself independent conception and suggestion. To Dr. Barnes belongs the merit of forcibly presenting the subject to the profession at a later date, of endeavoring by modification of our instruments to perfect one for practice, and of adopting my proposal of water as the dilating medium.

So far, as regards our several claims to the original proposal of dilatation of the cervix by pressure from above. I have referred to the value of water as compared with air for the dilating medium. This to my mind is practically as important as the idea of the dilatation itself, for it is a question that may often directly involve the life of the patient. Cases are already on record of sudden death from admission of air into the cavity of the uterus, especially towards the close of pregnancy and during labor. I need only refer to those instanced by John Reid,* Simpson,† May,‡ Barry,§ Depaul, Gardner, Dalton and others; and whether we are to suppose the fatal result produced by the passage of air into the abdominal cavity through an abnormally patent Fallopian tube, or its forcible injection thither by the uterine contractions, or are to accept the more probable alternative, as suggested by the younger Legallois in 1829, by Ollivier in 1833, and more recently by Reid, Simpson, Cormack,‖ and McClintock,¶ that the air is forced directly into the circulation through the uterine sinuses, and so kills by inducing paralysis of the heart from overdistension, or asphyxia from more gradually increasing obstruction of the lungs, it is impossible to lose sight of the danger. To this I have repeatedly called attention on former occasions, and a marked and fatal instance of its effect has just been communicated to me by my friend Dr. Hitchcock, of Fitchburg. In view, therefore, of the risk referred to, I have not hesitated to impress upon the students at present temporarily in my charge, the extreme caution necessary in manual or operative interference during labor, the impropriety of endeavoring to excite intra-uterine or intra-vaginal respiration, even by the method so ingeniously suggested by Dr. Jacob Bigelow, of this city,* and also the possibility of air sufficient to produce fatal syncope being thrown into the uterine cavity where premature labor is induced by the injection of water between the membranes and uterine walls, as in cases of death related by Guillier, Germann, Chiari and others.

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* Physiological Researches, 1848, p. 578.

† Obstetric Works, i., p. 710, ii., p. 74; Edinburgh Medical Journal, Sept., 1861, p. 289.

‡ British Medical Journal, June, 1857.

§ Prov. Medical and Surgical Journal, Nov., 1850.

‖ London Journal of Medicine, Vol. ii., p. 950.

¶ Medical Press, March, 1852, p. 147.

In the instances of the new method reported by Drs. Keiller and Murray, dilatation was effected by India-rubber sacs into which air was forcibly thrown. Against rubber for uterine or vaginal application, used in any form except vulcanite, which as yet is afforded us in too unyielding a state, there is the insuperable objection that it is chemically acted upon by the fluids with which it comes in contact and becomes at once offensive and irritating. If distended to any great extent, it is very liable to rupture, and if this be guarded against by an increase of thickness, the introduction of the sac becomes proportionately more difficult. In the use of thin animal membrane for dilatation the same liability to rupture exists, unless, as suggested by Arnott, a delicate layer of a stronger substance, as silk, be interposed between two layers of the membrane. In practice I have more than once ruptured the membrane during its distension by water, and therefore know that what I have asserted of such danger where air is used, is not unfounded. What, then, can be said of the deliberate use and recommendation of air under these circumstances? Is it not an unjustifiable exposure of the patient's life to a grave and unnecessary risk?†

To one other objection that might be alleged I must call attention, merely to state my belief that it is unfounded. There is no doubt that in the induction of premature labor by the injection of water at random between the membranes and the uterine wall, after the method of Schweighauser and Cohen, and as is now so commonly done, there is some liability of effecting an unfavorable change in the presentation of the child, and of inducing hæmorrhage by partial separation of the placenta. It is also possible, as in two cases lately related by Simpson,‡ that rupture of the uterus, from excessive overdistension, may thus be produced. These remarks, however, do not legitimately apply to the subject now under our consideration. The extent of separation of the membranes, of dilatation of the cervix and of additional distension of the uterus, by the use of the enclosing sac we have proposed can be kept perfectly under control. The amount of dilatation and its exact location are accurately known from the size and position of the sac, and, in case of necessity, by a mere turn of the stop-cock we can at once effect the entire escape of the fluid and collapse of the dilatatorium.

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* American Journal of the Medical Sciences, April, 1829, p. 285.

† I might refer to various other points, of practical importance in this connection, but prefer to leave them in the hands of an intelligent and talented gentleman of the present medical class, Mr. Greene, of Fitchburg, who is preparing a monograph upon the subject.

‡ Edinburgh Medical Journal, Sept., 1861, p. 290.

The method we have now discussed, it will have become evident, is applicable not merely to cases requiring the induction of premature labor, but wherever for any other reason it is desirable to have free access to the uterine cavity, as for the removal of tumors, &c. &c. A consideration of these circumstances, however, I shall reserve for another occasion.

GUN-SHOT WOUND OF THE HIP, UPON WHICH SUPERVENED PYÆMIA—RUPTURE OF THE LIVER, &c.

By Lewis Heard, M.D., Acting Ass't Surgeon, U. S. A.

[Communicated for the Boston Medical and Surgical Journal.]

Thomas McGowan, aged 26 years, by occupation a blacksmith, a private in Co. H. 121st Regt., N. Y. Vols.; of dark complexion, black hair, dark eyes; temperate habits, except excessive use of tobacco; came into Finley General Hospital May 8th, 1863, with gun-shot wound of the left hip, received the 3d of the same month, in the battle of Chancellorsville, Virginia. He was placed in the first ward, under the care of Dr. Logan.

On examination, the ball (a Minié) was found to have entered at a point near the anterior inferior spinous process of the ileum, and taking a direction backwards, had been cut out very near the posterior inferior spinous process of the same bone, having passed close to the upper edge of the acetabulum and ischiatic notch.

No hæmorrhage. Complained of pain in the hip and thigh, with inability to use them; pulse 90, of good strength; slight febrile excitement, moderate heat of surface; some degree of redness and swelling about the wounds, but little discharge. Bowels constipated; tongue very slightly coated; appetite impaired. He was placed in as easy a recumbent posture as possible, water dressings applied, and an opiate given at night.

May 10th.—During yesterday had less feverishness and pain. To have good hospital diet, except meat. Continue the water dressings, and to relieve the bowels, Ol. ricini ℥ i. was ordered to be given in the evening. Pulse 80, full and of fair strength; thirst and heat less. Bowels well evacuated this morning from the oil.

May 18th.—The treatment for the last seven or eight days consisted in an occasional laxative of oleum ricini, to keep the bowels soluble, and opiates given *pro re nata*, to procure rest and sleep; the water dressings assiduously employed, and wounds kept clean.

At this time slight chilliness being complained of, and the pulse becoming somewhat accelerated and of less resistance, with other symptoms of depression of the nerve power supervening, quinine, in doses of three grains, was prescribed and directed to be repeated every six hours. Milk punch, beef tea, chicken broth, and other nutritious articles of diet to be given, an aperient every third or fourth day to secure a proper state of the bowels, and a dose of morphine at bed time. Local treatment as before.

25th.—The above remedial management has been pursued since last date, but no material change in the condition of the patient has taken place, except the chilliness has in a great measure subsided, and he suffers less pain in the limb, and there is some improvement of the appetite. Tinct. ferri chloridi gtt. xij. to be given every six hours, alternating with the sulph. quinine. The same nutritious diet was continued, with a moderate use of wine. No change of dressings. The posterior wound has now healed. Discharge from the anterior one free and of healthy character.

31st.—Up to this period there has been no change of treatment, as the patient gave evident manifestations of gradual improvement from it; is quite easy when perfectly at rest. Cannot, however, be moved without severe pain, and even complains of suffering from the jarring of the floor by heavy walking over it.

At this time, Dr. Logan having been taken ill, the patient came under the care of Dr. Walter, who gave unremitting attention to him till the case terminated in death.

June 1st.—At about 10 o'clock last night, he was taken with a severe rigor which lasted half an hour, when moderate reaction ensued, and at the end of an hour more, copious perspiration broke out, accompanied with considerable tremulousness of the hands. This morning he is still perspiring; pulse 130, soft, and rather small; tongue dry and brown; some thirst; seems cheerful, and expresses hope of recovery. ℞. Quiniæ sulph., ʒ ss.; acidi sulph. aromat., ʒ i.; tinct. ferri chloridi, ʒ ij.; aq. font., ℥ ij. Misce fiat mist. Dose, a teaspoonful every two hours. Diet, milk punch, &c., as heretofore.

2d.—Patient continued comparatively comfortable through the afternoon of yesterday, but at about 10 o'clock in the evening, another severe chill occurred, of about the same duration as the first, and followed by the same train of morbid phenomena. On the morning visit was still perspiring; pulse 125, small, and nonresisting; tongue dry; moderate thirst; tremor of hands the same; is rather talkative, and expresses strong hopes of recovery. ℞. Ext. valerian. fluidi, ℥ ij.; carb. ammon., ʒ ij.; glycerini, ℥ i. M. ft. mist. A teaspoonful to be taken every three hours. Gave also, in addition to what he had been taking, quinine in doses of gr. v.

ter in die. Made but little complaint through the day. Diet the same; no change of dressings.

3d.—Passed the night without chill; was somewhat delirious, however, with sleep disturbed; skin of natural temperature; pulse 135, of reduced force; tongue still brown and dry; persists in chewing his tobacco, the power of habit being so great. Has, for some days, had one healthy alvine evacuation every twenty-four hours. Tremor of hands and arms rather increased than otherwise. Seems to require an effort to speak.

At 12, M., was seized with another severe rigor; pale and cadaverous expression of countenance; pulse more frequent and very small; and in half an hour from the commencement of the chill he died, evidently from the extent and severity of the internal congestion.

Autopsy—Eighteen hours after death.

Body but little emaciated; the thigh of wounded side at least one third larger than the other.

Thorax.—Very little effusion into the left pleural cavity; quite extensive old pleuritic adhesions; lungs considerably congested, but not the least appearance of consolidation. No tubercles nor metastatic abscesses to be found. Heart normal.

Abdomen.—Vessels of the peritoneal covering of the intestines much injected. No effusion into the cavity of the abdomen. Liver enlarged to one third beyond its natural size; of healthy appearance on its convex surface; but on raising it and exposing the concave side there was observed a rupture commencing on the posterior edge of the right lobe, some three inches from the apex, and extending transversely to the left three or four inches, and penetrating to the depth of, at least, a quarter of an inch, if not more, at the edge of this organ. A portion of the liver, not far from three and a half or four inches in diameter, through the centre of which passed the rupture, was of a very dark color—nearly black; soft, and easily broken down under slight pressure of the fingers, with hardly sufficient cohesiveness to sustain its own weight. It seemed disorganized—gangrenous. On making incisions into this diseased part, there issued a dark, ichorous-looking fluid, not unlike that which is discharged from certain soft structures in a state of gangrene. No abscess was found in any part of the liver. The gall-bladder contained two or three drachms of dark-colored bile.

The spleen was very much congested, and enlarged to twice its ordinary normal size, and presented the appearance of having been denuded of the peritoneum; was of unusually dark color, and so softened as to almost fall to pieces on being handled.

Other abdominal organs healthy.

On laying open the track the ball had taken, by cutting across the gluteal muscles, several ounces of pus were discharged, which had burrowed about the hip-joint and ischiatic notch. The ball had passed so near to the upper edge of the acetabulum, as to wound the capsule and open the joint; the cotyloid ligament and the cartilaginous covering of the head of the femur were corroded and rough to the feel. No further examination of the limb was made.

Remarks.—May not this case be considered one of pyæmia, though not sufficiently far advanced for the formation of metastatic abscesses, the sudden violent congestion having taken off the patient before the proper stage had arrived for these deposits?

It would have been interesting to have examined the condition of the veins, to ascertain whether there existed suppurative phlebitis or not, but there was not sufficient time given for this purpose, and it was not done.

How much the rupture of the liver and the gangrenous condition of a portion of its structure had to do with the sudden termination of the case, is a question which cannot well be determined; there can, however, be but little doubt that these, together with excessive congestion, constitute the immediate cause of death.

I have frequently witnessed great enlargement of the spleen, but do not remember to have seen a case presenting the same appearance and condition of this one; the rough and abraded surface is not common.

It is possible the patient may have been suffering under the deleterious influence of the malarious poison, though no manifestations of this had been observed till a few days previous to his death; and the symptoms then presented, were those common to both pyæmia and intermittent fever; and besides this, there has been no miasmatic disease, of any kind, in the Hospital, for a long time, as I can learn; but we have recently had a number of cases of pyæmia, some of erysipelas, and one of hospital gangrene.

Finley Hospital, Washington, D. C., June 10, 1863.

TWO CASES OF SUDDEN DEATH ON BOARD THE U. S. RECEIVING SHIP OHIO.

[Communicated for the Boston Medical and Surgical Journal.]

James Brown, landsman, mulatto, aged 18; born in Baltimore; died June 5th. John Lewis, landsman, mulatto, aged 20; born in Hartford; died June 12th. Two cases duplicating each other. The men were naval recruits. Each one had been on board the Receiving-ship Ohio about a fortnight at the time of his death.

Brown came into the sick bay, complaining of a bruised heel, resulting from a fall in the hold of the ship. In an hour afterwards he became insensible, and continued so for forty-eight hours, when he died.

Lewis came upon the sick list with no defined symptoms. He complained only of a general "misery." He also went into a comatose state an hour after entering the sick bay, and remained wholly unconscious for six hours, when he died.

The treatment in both cases was stimulant in its nature; more with an effort to get some information for direction than anything else. Neither patient could be roused. In both cases the vital force seemed to lessen gradually and steadily till death supervened.

Dr. Fox, of the Naval Hospital at Chelsea, Dr. Willard, of the Navy Yard, Dr. Potter, of the Ohio, and Dr. Shipley, were in attendance. Neither of them could detect any special symptoms, by any means in their power, against which to direct their treatment. I avoid detail by this comprehensive statement.

Brown was buried intact. Under Dr. Potter's supervision, Drs. Willard and Shipley made a prolonged and careful autopsy of Lewis's body. From his brain to his anus, every organ and every portion of every organ was normal in appearance and condition.

June 15, 1863.

Army Medical Intelligence.

U. S. GEN. MARINE HOSPITAL, NEW ORLEANS, LA.,
June 8th, 1863.

AT a recent *post-mortem* examination in this Hospital of private McCluskey, 91st N. Y. Vols., I found at the hilus of the spleen a deposit of bony matter, in round bodies, joined together like a bunch of grapes, eight in number, the largest being three fourths of an inch in diameter. These bodies could not be cut open with a scalpel, being hard, like bone.

The deceased was about 55 years of age, and died of hydro-pericardium. During his short stay in this Hospital he had suffered from three attacks of the "shakes," very severe in their nature. As it is stated by many writers that in febris intermittens we invariably find an enlargement of the spleen, it occurred to me that I would examine this case for myself. I found the organ to be of the normal size, weighing, I should say, six ounces, of about the usual hue, but very brittle under pressure, and containing the specimen I have before referred to.

It seems to me that a deposit like this in the spleen is an occurrence which is scarcely ever met with: at least six others than myself, surgeons in this Hospital, assert that they have never seen the like. I should be very happy to hear the opinion of others of our profession who have had a more extended experience than myself.

Very respectfully yours, ISAAC SMITH, JR., M.D.,
Ass't Surg. 26th Mass.
Now House Surg. U.S.G. Marine Hospital, New Orleans, La.

THE smallpox has lately been very destructive on the Pacific coast, both north and south of San Francisco. The Victoria papers mention that its ravages have been excessive among the Indians of Vancouver's Island, over 1000 having died.

Bibliographical Notices.

Clinical Lectures on the Diseases of Women and Children. By GUNNING S. BEDFORD, A.M., M.D., Professor of Obstetrics, the Diseases of Women and Children, and Clinical Obstetrics, in the University of New York: author of "The Principles and Practice of Obstetrics." Eighth Edition, carefully revised and enlarged. New York: William Wood & Co. 1863.

THIS is the most thoroughly clinical work it has ever fallen to our lot to read. It is made up of the most heterogeneous materials, the subjects treated being as various and as disconnected in their succession as the cases which present themselves in the daily experience of a physician in full practice. The lectures were delivered originally at the *obstetric clinic* of the University of New York, and are reported, it would seem, almost *verbatim et literatim*, from their general colloquial character and the frequent introduction of little dialogues between the Professor and patient. The author deprecates criticism on this latter score, on the ground that he wished to reproduce his lectures as nearly as possible as they were originally delivered. They certainly gain in life-like reality from this feature, what they may lose in some cases on the score of good taste. The book is very readable at the same time that it abounds in solid learning; while the treatment recommended is, in the main, judicious and practical. In an appendix we have the final result of many of the cases, the issue of which, as first reported, did not appear. The present edition contains a lecture, not in the former ones, on Carcinoma of the Uterus, besides other additions in the body of the work. No better proof of the popularity of these lectures could be adduced than the fact that they have been translated into both French and German, and that the book has reached its eighth edition in this country since the year 1855, in which it originally appeared.

Obstetrics: the Science and the Art. By CHARLES D. MEIGS, M.D., lately Professor of Midwifery and the Diseases of Women and Children in Jefferson Medical College at Philadelphia, &c. &c. Fourth Edition, revised. With one hundred and twenty-nine Illustrations. Philadelphia: Blanchard and Lea. 1863. Pp. 730.

IT is not our intention to offer at this time any criticism upon the opinions contained in this volume. The author's peculiar views upon many of the topics treated of are too well known to need any mere mention here, and to examine them with the careful consideration which his long experience and reputation demand, would require as much space almost as the volume itself. We certainly could not recommend it to the student as the *only* text-book to be consulted, although it contains a large amount of valuable and original matter. It is a pity that the author, among the changes in the present edition, had not substituted a plain and simple language for the mixture of French, Greek, Latin, bad German and worse English he employs so frequently. The changes alluded to are of form chiefly, for the work has been divided into paragraphs or sections, so that the table of contents furnishes a ready consulting index to the whole volume. The article on Placenta Prævia has also been recast. The book makes a very handsome appearance, and the printing and illustrations are good.

A Practical Treatise on Fractures and Dislocations. By Frank Hastings Hamilton, A.B., A.M., M.D., Lt. Col.; Medical Inspector, U.S.A.: Professor of Military Surgery and Hygiene, and of Fractures and Dislocations in Bellevue Hospital Medical College: one of the Surgeons to Bellevue Hospital, New York: Professor of Military Surgery, &c., in the Long Island College Hospital, Brooklyn: Author of a Treatise on Military Surgery. Second Edition, revised and improved. Illustrated with 285 Wood-cuts. Philadelphia: Blanchard and Lea. 1863. Pp. 751.

It is now somewhat more than three years since the first edition of this work was published. At that time it met with the highest praise from the medical press both at home and in Great Britain, for it filled a void in surgical literature to the entire satisfaction of its numerous readers. We reviewed it so fully then (Vol. LXII.), and so little change has been made in the present edition, that we have little to add at this time. We regret, however, that the author has not thought best to give a chapter to the consideration of fractures of the skull, which was alone wanting to make the work all that was desired by the surgeon. With the exception of a short chapter on Gun-shot Fractures, at the close of the volume, the table of contents remains unaltered. The author states that he has "sought to render this edition, as far as possible, a faithful record of the progress of that branch of surgical science of which it treats. With this view some portions have been amended, some paragraphs have been excluded, and considerable additions have been made." The work is published in a handsome form, upon clear, white paper, and in large, clear type.

A Handbook of Uterine Therapeutics. By Edward John Tilt, M.D., Member of the Royal College of Physicians; Consulting Physician of the Farringdon General Dispensary, &c. &c. London: John Churchill and Sons. 1863. Pp. 300.

The object of the author of this little work was to present to the profession a condensed view of the various methods that have been employed during the past fifty years in treating inflammatory affections of the womb. It is not merely a synopsis of such treatment, but the various remedies recommended or mentioned are subjected to judicious criticism, strongly marked by the sterling good sense of the author. The different modes of treatment and classes of remedies employed are arranged in different chapters, and most of the diseases of the uterus for which physicians are consulted come under consideration. The subjects of uterine displacements and sterility are treated in a very interesting and practical manner. The whole concludes with a very good formulary of remedies. We commend this volume to the notice of the profession.

Dentition and its Derangements. A Course of Lectures delivered in the New York Medical College. By A. Jacobi, M.D., Prof. of Infantile Pathology and Therapeutics, &c. New York: Baillière Brothers. 1862. 12mo. Pp. 172.

This book is a republication of the lectures as they originally appeared in the New York *Medical Times.* It gives a minute history of the development and growth of the teeth, and of the various affections considered, with more or less reason, to be connected with them. It is full of curious information derived from the historic lore of the profession, and shows very extensive reading on the part of the author. His great object is to prove that most of the diseases attributed to teething, such as various cutaneous affections, inflammatory affections of the mouth and the mucous membranes generally, of which it is so commonly made the scape-goat, are not in the least caused by this process, which is a purely natural and physiological one, and merely coincident with the disorders attributed to it. As might be expected, he is most strenuously opposed to the promiscuous cutting and slashing of the gums under these circumstances, so urgently recommended by many writers, and too frequently practised as a cover for professional ignorance, or to save the trouble of combating the prejudices of nurses and mothers, or of a careful study of the symptoms presented. Only on the rarest occasions does the author feel justified in scarifying the gums. With his views, in the main, we fully coincide; they are well worth careful consideration by the profession, and we shall be glad to see them illustrated by an improved practice.

Vest-Pocket Lexicon. An English Dictionary of all except Familiar Words; including the principal scientific and technical terms, and foreign moneys, weights and measures; omitting what everybody knows, and containing what everybody wants to know, and cannot readily find. By JABEZ JENKINS. Philadelphia: J. B. Lippincott & Co. 1863.

IT really seemed impossible, at an outside glance at this pigmy book, that it could fulfil all the promise of the title-page above, but on further examination we have found it a perfect little treasury of strange terms and phrases, which are constantly met with by the reader, and which he passes by unexplained in order to avoid the trouble of consulting a ten-pound modern dictionary, if he can afford to possess one. Everybody will be astonished, on looking at any one of its pages, to find how large a proportion of the words are unknown to him, or of how few he could give an accurate definition if asked. To the scientific reader it will prove itself a most valuable pocket-key, which he will find daily occasion to use. It is clearly printed upon a page of two by three inches, and is for sale by the publisher at the low price of 54 cents.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JULY 2, 1863.

THE following communication, which we have received from Dr. Thomas D. Mitchell, Professor of Materia Medica and Therapeutics in Jefferson Medical College, deserves to be read with some consideration. Any one interested in our medical schools will feel the force of his objections to the hackneyed character of the theses too often prepared by the graduating classes. As the matter now stands, this is, to a very great extent, unavoidable. It cannot be expected that young men of no personal experience in the treatment of disease can offer on the subjects usually discussed more than a *résumé* of the thoughts and the science of others. We are not confident, to be sure, that students in general, before graduation, will have much more opportunity of pursuing the course proposed by Dr. Mitchell. They can at least, however, test the properties of the different articles which he mentions, upon themselves, with undoubted advantage to the profession. The pharmacopœia is overloaded with substances highly recommended for properties which, if really belonging to them, should make them invaluable to the practitioner of medicine, and yet they are hardly ever employed. The question is a difficult one, and its solution must, we suppose, be left very much at the option of the student. Dr. Mitchell's hint, however, is too good to be lost by the profession at large; and we are glad that that living branch of the Massachusetts Medical Society, the Middlesex East District Society, has already taken active measures towards settling the claims of some of our native plants and other medicinal substances to the virtues ascribed to them. This is a step in the right direction, which cannot be too highly commended, and we shall be much gratified to see the example followed by our other District Societies.

Hints on Inaugural Theses.—A cursory glance at the titles of inaugural theses, as given in the published lists of the graduates in medicine and surgery, would induce the supposition that topics suitable for such productions have well nigh been exhausted. Typhoid fever, pneumonia, dysentery, diphtheria and other common-place subjects are so commonly before our eyes, that one might fancy, at least, that none others were worthy the notice of candidates for graduation. The evil under review leads to a result that is perhaps almost unavoidable; and that is, a habit of copying, year after year, with little or no effort at originality. Take typhoid fever, as a sample. The candidate tells just about the same story that has been rehearsed a hundred times before, adding, it may be, a case or two that occurred in the practice of his preceptor, by way of illustration. As a consequence, the professors, into whose hands these essays fall, are not disposed to read them, just because they feel that an old story merits nothing more than a hasty glance.

Now this practice has grown so absolutely stale as to warrant an effort, at least, to make it obsolete. Nor is there any real difficulty in the way of reform, as this brief paper will abundantly show.

Our widely-diversified and very extensive country presents articles that have never been properly investigated, and not a few that have scarcely been the subjects of research at all; and it is my purpose to place before the medical student who has industry equal to the task, several items of our great domestic storehouse, the analysis of which would tend not a little to enlarge our curative resources.

The American *Holly*, so abundant in this country, and used by the aborigines as a remedy for periodical fevers, demands a full investigation. A foreign work has told us of the *Ilex opaca* of Great Britain, and its proximate principle, *Ilicene*, as substitutes for Peruvian bark; but the Ilex or Holly of America has had no proper investigation. It is quite easy to obtain the leaves and bark and to form decoctions and extracts, according to the rules laid down in the books, and then to test their power on the human economy. A proximate principle might also be developed, similar to the Ilicene of the *British Flora Medica.*

The different species of *Salix*, too, call for more thorough investigation. Everywhere we see the *willows*, and most persons are familiar with them. The proximate principle, *Salicine*, is one of the well-known substitutes for the salts of quinine, and the decoctions of the bark have been in use at a period more remote than we would now venture to name.

The very common *Poke-root* (Phytolacca decandra) belongs to the same category. Something has been done in respect of this article, but it has not yet received the attention it merits.

Our *Persimmon* trees, loaded with fruit, meet the eye in almost every direction, and this is about all that thousands know respecting them. Two or three distinguished men have written on their merits, but to this date no proper analysis has been made, and of course the real value of the article is not known. I incline very strongly to the belief that future researches are destined to give the persimmon a far higher place than it now enjoys among remedial appliances.

It is high time, too, that the real value of the *dewberry* and *blackberry* plants was understood. Everywhere employed in domestic practice, why should their therapeutic powers be so imperfectly known that two professors in the same school should, on the same day, pronounce opposite opinions respecting them? Doubtless they are of more value than we are wont to believe.

The *Peonia* (often called *piney)*, the *Apium petroselinum* (garden *parsley*), the familiar *Ruta gravedens* (*Rue*), all have claims that have never been fully met, and yet each has its own peculiar value.

This list could be greatly extended, but we shall content ourselves with alluding to but one other native vegetable, viz., the *Sarracenia purpurea*, more commonly known as the *pitcher* plant, from the resemblance of the leaf to a small pitcher; it usually contains one or two ounces of water. My first knowledge of this plant was gained from a perusal of Part 46 of *Braithwaite's Retrospect*, page 95, where its ancient use by the Indian race, as a prophylactic and also as a remedy for *small-pox*, attracted my attention. This, added to the actual use of the plant in the *Toronto Hospital* (Canada) in the treatment of variola, induced me to present the subject to my class last winter.

The pitcher plant is very abundant in the United States. Excellent samples were sent to me early last spring from New Jersey, where it flourishes in swampy lands. The plants are now in full vigor in this city, and bear a very pretty flower. A strong decoction of the roots is the preparation employed, now, as in the days of aboriginal simplicity. As the plant is exceedingly abundant, any desirable quantity may be gathered for experimental purposes.

It will occur to the reader that the articles above named (and there are scores besides) are in our own soil and therefore easy of access, and to be had at little or no expense. Let our candidates for graduation make their selection, and devote a portion of the usual college recess to a careful investigation, and they will be able to present theses that may have some good claim to originality; and the day may yet come when our own country will be able to furnish scores of remedial agents whose actual worth may supplant many articles that are now brought to us from far distant climes.

It is my custom to present this whole subject to my class every winter, but it seemed desirable to call the attention of others, equally interested, to the special merits of the case.

Philadelphia, June 24th, 1863. Thos. D. Mitchell, M.D.

Non-Re-election of Dr. Moriarty.—In common with many of the profession and of the scientific community, we have to express our regret that the Board of Aldermen (by a majority of *one* vote only, we are glad to say) have concurred with the Common Council in the choice of a successor to Dr. John M. Moriarty as Port Physician. We have heard no grounds of objection against him, and we are not among those who believe that a change is always for the better, and that the judgment to be derived from long experience should go for nothing. We feel sure that if Dr. Stone, the new officer, and whom we hear well spoken of as a promising young physician, shall, after some years of experience and acquaintance with the duties of the office, attain to the popularity with which Dr. Moriarty has for the past fifteen years performed its functions, he will have every reason to be satisfied with his measure of success.

Dr. Moriarty was appointed to this post when it was a dangerous one, and had just been made vacant by the death, by ship fever, of his brother, the first Physician at Deer Island.

His administration of its affairs as Superintendent, under its various committees, has been marked by energy, industry, an amplitude of discretion, generous hospitality and good judgment, which have made the Institutions at Deer Island a favorite resort by all officers from other cities. Dr. Moriarty will carry with him into his retirement the best wishes of hosts of friends.

Vital Statistics for the Year 1862 in Connecticut.—From the annual report of the State Librarian, relating to the registration of births, marriages and deaths during the last year, we learn that the whole number of recorded births in the State was 10,803—males, 5,503; females, 5,213; sex not specified, 87. The proportion of males to females was less than usual—the average ratio since 1847-8 having been 108.11 males to 100 females, whereas during the last year it was 105.56 to 100. The whole number was less by 1,131 than in 1861. 151 were colored. The number of plurality births was 108, two of which were triplets.—Of marriages, 3,701 were reported; 56 less than in 1861. Of deaths, 8,541 were recorded—4,286 males, 4,113 females, and 142 not specified; an increase of 806 from the year before. Excess of births over deaths, 2,262. Scarlet fever and diphtheria are given as the cause of 1,119 of the deaths during the year. Of the deaths under one year, 126.6 males died to 100 females—and from one to five years, 108.9 males to 100 females; while from eighty to ninety years, 145.3 females died to 100 males—and from ninety to one hundred years and upward, two and seven females respectively to one male.

New Hampshire Medical Society.—The 73d annual meeting was held at Dover on the 23d and 24th ult. Dr. Charles P. Gage, of Concord, President of the Society, delivered the annual address, the subject of which was "Public Hygiene." It was listened to with marked attention, and closed with patriotic allusions to the great contest in which the country is now engaged, and a brief reference to the active part which our profession has borne in it. Dr. Webster, of Boscawen, presented his report on Consumption, and Dr. L. G. Hill the report of the delegates to Dartmouth College. Dr. Watkins, of Troy, attended as Delegate from the New York State Medical Society. Dr. T. H. Currie, of Webster, exhibited his new splint; a discussion in regard to incompetent surgeons in the Army took place; and resolutions were passed on the deaths of Drs. Noah Martin, Campbell (late of the 16th N. H. Regiment), and Fernald. The following officers were chosen for the coming year:—*President*, Paul A. Stackpole, of Dover; *Vice President*, John Clough, of Lebanon; *Secretary*, N. Call, of Pembroke; *Treasurer*, L. G. Hill, of Dover; *Councillors*, Drs. Robinson, Whipple, Wheat, Eaton, Bickford, and eight others. *Delegates to Dartmouth College*, J. W. Pray and S. M. Whipple. A social levee on Tuesday evening was given by the citizens, and attended by a large number. The next annual meeting is to be held at Manchester.

CORRECTION.—We were premature in our announcement last week of the election of Prof. Wolcott Gibbs to the Rumford Professorship at Cambridge. We should have stated that he had been nominated, the nomination having not yet been acted upon by the Board.

DR. HALL CURTIS, of this city, late Assist. Surgeon of the 24th Mass. Vols., has been promoted to the post of Surgeon to the 2d Heavy Artillery.

So much of Special Orders 205, current series, Adjutant General's Office, as dismissed Surgeon J. C. Bassett, 29th Mass. Vols., has been revoked, he having been previously honorably discharged by Special Order No. 38, Headquarters 9th Army Corps.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JUNE 27th, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - - -	33	31	64
Ave. mortality of corresponding weeks for ten years, 1853—1863,	33.6	31.1	64.7
Average corrected to increased population - - - - -	00	00	71.30
Death of persons above 90 - - - - - - - - -	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
10	2	2	1	0	1	3	1

MARRIED,—In North Cambridge, June 23d, William A. Wilcox, M.D., of Missouri, to Miss Emma E. Murray, of North Cambridge.—In Skowhegan, Me., J. B. Bell, M.D., of Augusta, to Miss M. Pauline Robinson, of S.

DIED,—In Brattleboro', Vt., suddenly, Dr. J. W. Phelps, of Boston, 56.

DEATHS IN BOSTON for the week ending Saturday noon, June 27th, 64. Males, 33—Females, 31.—Abscess, 1—accident, 2—inflammation of the bowels, 2—congestion of the brain, 2—cholera morbus, 1—consumption, 10—convulsions, 4—croup, 2—diarrhœa, 2—diphtheria, 1—dropsy, 1—dropsy of the brain, 3—drowned, 1—dysentery, 1—scarlet fever, 2—typhoid fever, 3—disease of the heart, 2—homicide, 1—infantile disease, 4—intemperance, 3—disease of the kidneys, 1—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 2—marasmus, 3—old age, 1—premature birth, 1—teething, 1—unknown, 5.

Under 5 years of age, 26—between 5 and 20 years, 10—between 20 and 40 years, 14—between 40 and 60 years, 4—above 60 years, 10. Born in the United States, 45—Ireland, 13—other places, 3.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXVIII. THURSDAY, JULY 9, 1863. NO. 23.

PARTIAL DISLOCATION OF THE HEAD OF THE RADIUS IN YOUNG CHILDREN.

BY DANIEL V. FOLTS, M.D., BOSTON.

[Communicated for the Boston Medical and Surgical Journal.]

THIS is an injury which the surgeon not unfrequently meets with, without fully recognizing the anatomical seat of the accident. Several cases have occurred in my surgical practice during the past season, and in every case but the last, the particulars of which I shall give in detail, whilst the usual symptoms were present, in manipulating to ascertain the nature of the injury the pronation was suddenly overcome, and the limb was at once in as useful a condition as ever.

My last case occurred in a little boy of five summers. While at play he was caught by an older brother, when both hands were thrown behind him in a state of extreme pronation. He was forcibly held in this position, and whilst struggling to escape from his captor, he screamed out violently in intense pain. I saw him soon after, and found him still crying. His arm was hanging by his side, a little in front of his body; elbow slightly bent, hand pronated. To the question "what is the matter, my little boy?" he answered, "A. has hurt my elbow." I examined this articulation carefully, but could not detect the slightest deformity. Flexion and extension could be performed almost without pain; but on the slightest attempt to supinate the hand, the little fellow would scream in agony. An anodyne application was directed, and the arm placed in a sling. He slept well during the night, and made but little complaint the following day; but was not at all inclined to use the arm.

I took occasion, the following evening, to examine the arm when my patient was sound asleep, thinking it possible that the fear of being hurt prevented him from using the arm, or suffering me to rotate the radius. But the slightest attempt to alter the position of that bone relative to the ulna would awaken him, by the violence of the pain. I now concluded to etherize him, examine the fore-arm and elbow carefully, and make forcible supination if that should be necessary. After a few inspirations he opened his eyes and made the chamber ring with his laughter. How much better to make him laugh, than cry! "That is a funny rag," he said, "let me smell it more." And then he would break out again and again in peals of laughter. I never saw the ether have a more pleasant effect upon a child. I now proceeded to examine the limb very carefully. The wrist was perfectly normal, and the elbow, with the exception of a slight swelling, free from all deformity. Grasping the wrist with my right hand, and holding the elbow in my left, with a thumb upon either extremity of the radius, I made forcible and extreme supination. There was some resistance at first, but soon I felt a slight shock and heard an indistinct snap under my left thumb. All resistance was now overcome, every motion of the joint was perfect, and has continued so to the present day.

This case settles the question, in my own mind, as to the seat of the "injuries of the arm in small children," that are of such common occurrence, and about which so little that is satisfactory can be found in our ponderous tomes on surgery. In the present case, we have the most satisfactory evidence that it was the elbow, and not the wrist, that was injured; that it was the head of the radius, and not the inter-articular fibro-cartilage of the wrist that was involved. My patient was an intelligent little fellow, and just as capable of locating pain as an adult, and he complained exclusively of the elbow.

The symptoms in this case were precisely the same as those M. Goyraud, of Aix, enumerates in his observations; but the reduction entirely disproves his theory, whilst it confirms the opinion of Dr. Hodges, of this city, as set forth in an article published in Volume LXVII., page 129, of your JOURNAL. In the cases published by both these gentlemen, the patients were so young that they could give no reliable indications as to the precise locality of the injury. They would cry when the limbs were moved, but that was about all: there was evidently pain somewhere, but it was left for the surgeon to ascertain its seat as best he might; and in most cases, as we have seen, whilst he was manipulating, the injury disappeared before a satisfactory diagnosis could be made out. But in this case the reduction was less easily effected. Even after the patient was fully etherized, the same obstacle to its accomplishment seemed to exist as before, and any slight attempt to rotate the radius, outward, was brought up by some mechanical impediment. This enabled me to handle the parts more at my leisure, and to take every precaution to ascertain accurately which end of the radius was involved. The peculiar snap attending the reduction, though much more feeble, of course, was in its nature not unlike that which every surgeon has felt when the head of the humerus glides back into its glenoid home.

38 *Maverick Square, June,* 1863.

ON AMPUTATION OF THE THIGH.

By John Green, Fellow of the Massachusetts Medical Society, late Acting Assistant Surgeon U.S.A.

[Continued from page 404.]

Two or three especial points deserve notice in connection with Amputation of the Thigh.

A bad position of the patient upon the table may give rise to great embarrassment in the retraction of the soft parts. All trouble from this cause may be avoided by drawing the body well down, so that the nates may rest upon the edge of the table.

The position of the limb during the operation is a matter deserving of more attention than is usually bestowed upon it. It is well known that after amputation of the thigh the stump inclines to turn upward, through the action of the psoas-iliacus muscle. In proportion as this elevation takes place, the muscles on the back part of the thigh (the long head of the biceps, the semi-membranosus, semi-tendinosus, and adductor magnus), which all arise from the tuberosity of the ischium at a point about two inches diagonally behind and below the centre of motion of the head of the femur, are drawn away from the end of the bone, while the vasti and cruteus, which arise from the front and sides of the femur, are not at all relaxed by the change in position. This fact, which has been long recognized, has led to the direction, either to leave the soft parts longer behind than in front,* or to confine the thigh by straps in a horizontal position during the course of the after-treatment.† It is an excellent plan, in this and in some other amputations, to operate upon the limb in the same position which it is likely to assume during the after-treatment, and this position, in the case of the thigh, will be that of partial flexion on the body. The thigh may be still farther elevated, before sawing the bone, with the advantage of greatly facilitating the separation of the muscular and tendinous attachments at the linea aspera.‡

The dread of lacerating the periosteum has led to the precept never to apply the saw until this membrane has been divided by a circular sweep of the knife. This is a necessary precaution in very young persons, in whom the periosteum is easily detached from the bone, but is superfluous in the case of adults. It is of much greater importance carefully to avoid denuding the bone above the point of its section, even if we have to divide a few muscular fibres with the saw.

Hæmorrhage.

The control of the hæmorrhage during the operation is effected either by pressure upon the femoral artery, or by tightly encircling the whole limb with a fillet; or the two methods may be combined, as is the case in the tourniquet of Petit, which is now in common use. The old method of tying the fillet tightly around the limb has the great disadvantage of acting slowly, thus compressing the veins before the arteries, and allowing the whole limb to become congested with blood before the operation is commenced. The introduction of the "garrot," however, by Morel, rendered the method nearly perfect. The fillet is tied loosely around the thigh, and is tightened, at the very instant of making the first incision, by twisting with a short stick placed beneath it. The action of the "garrot" is almost instantaneous, and it is powerful enough completely to arrest the circulation in all the vessels, both great and small. The tourniquet of Petit is a strap adjusted by a buckle, and capable of being tightened by turning a screw, which at the same time compresses the main artery by means of a wooden pad. The action of this instrument is slower and less powerful than that of the "garrot," and it allows the limb below it to become engorged with blood, without affording absolute security against arterial hæmorrhage. The "compressor" of Dupuytren consists of two pads connected with each other by a strong arc of steel. The larger pad, which is made flat, is applied to the side of the limb opposite to the main artery, and serves as a point of resistance to the smaller pad, which is forced down upon the vessel by turning a screw. This instrument does not prevent the return of the blood through the veins, and it may be applied, as may also the tourniquet of Petit, to compress the femoral artery against the horizontal ramus of the pubes where it emerges from the pelvis.

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* Malgaigne. † B. Bell. Liston.

‡ Charles Bell. Great Operations, op. cit., p. 60.

All instruments for the compression of the femoral artery have the disadvantage that they cannot be easily applied so high as is often desirable, and when placed too near the point of amputation they interfere with the proper retraction of the soft parts, if indeed they do not become loose or slip off altogether at the very moment when they are most needed. They are therefore better adapted to amputations in the lower than in the upper half of the thigh, and they interfere less with the performance of the operation by flaps than by the circular methods. The best method of compressing the femoral artery is by the fingers of a thoroughly competent assistant. Slight pressure suffices, and it is applied at the exact point where the pulsation of the vessel is felt. The pressure may be kept up, with but little fatigue, for an hour or more, if necessary, and it may be relaxed or resumed in an instant. The compression of the femoral artery may be made most conveniently against the pubes, and at this point it offers no impediment to the retraction of the soft parts. In the absence of a competent assistant, the "garrot," or handkerchief and stick, is probably a more efficient instrument than the common tourniquet.*

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* See Nathan Smith, op. cit., p. 223. Also Dupuytren, Leçons Orales, tome 2me, p. 381.

Every surgeon has observed that, at the moment of making the incisions, quite as much blood often flows from the vessels of the severed limb as from those which remain connected with the heart. The hæmorrhage from this source is often greatly increased by the unskilful manner in which the tourniquet is applied; but even under the most favorable circumstances the loss of blood will be equal to the quantity originally contained in the limb, in addition to that which escapes, owing to the imperfect suspension of the arterial circulation. The idea of emptying, in part, the vessels of the limb before the operation, is found in the writings of Prof. Nathan Smith* and of Sir Charles Bell. The former surgeon proposed either to elevate the limb above the level of the body, or to compress the main artery for a few minutes before tightening the handkerchief, which he used instead of the tourniquet. Sir Charles Bell's† plan is more efficient: it consists in applying a roller firmly and evenly to the whole limb before operating, by which course "the veins are emptied into the general system, and blood is saved instead of being withdrawn." This application of a roller to the limb may be of the greatest service in a very exhausted state of the patient, and there is no good reason why it should not be generally adopted in the case of the larger amputations.

For the arrest of the hæmorrhage after amputation, very many methods have been employed at different times, but they may all be divided into two classes, according as they are applied to the main artery only or to the whole cut surface. Of the former methods the ligature deservedly stands first. The common direction is to draw out the end of the artery from its sheath by forceps‡ or by a tenaculum, and to tie it with strong silk or linen thread. In a healthy state of the tissues this is easily effected; the artery is connected with the surrounding parts by lax areolar tissue, and can readily be drawn out for half an inch or more, retracting again into its sheath as soon as it is released. In a limb, however, which has been the seat of inflammation, this areolar tissue is often found consolidated by a deposit of coagulated lymph, which glues the artery firmly to its sheath. In this state of the parts, which is frequently observed in secondary amputations, it is often impossible to isolate the artery,§ and the only alternative then is to include some of the surrounding tissues in the ligature, taking care, however, not to tie up any large nerve. This "mediate" ligature is best applied with the aid of a curved needle or tenaculum. The point of the instrument is passed into the face of the stump a short distance from the mouth of the vessel, and is carried across in such a way as to transfix the walls of the artery, emerging on the other side; the ligature is now tied firmly behind the tenaculum, and thus the vessel is constricted just above the point where it has been transfixed. Applied in this way, the ligature is more liable to slip off than when it is placed immediately upon the artery, and the larger the mass of flesh is which is encircled by the thread, the greater will be the probability of its shrinking under the pressure and allowing the ligature to become loose. In cases where it is necessary to trust to this method for the closure of the femoral artery, it may be well to use a small curved needle instead of the tenaculum, tying the ligature behind it, and leaving the needle in its place for several days; the needle might be drawn out at any time by means of a thread passed through its eye. The "mediate" ligature is especially useful in the case of the smaller muscular branches, which are not easily isolated and at the same time become very soon obliterated. The thread used for ligatures should be strong enough to bear considerable tension, in order that it may sink a little into the walls of the vessel, and thus afford the greater security against slipping. A very fine ligature is seldom of sufficient strength to constrict a large artery, and is liable, also, to cut through the tissues; a coarse cord, on the other hand, cannot easily be tied with sufficient firmness about a small vessel, especially if the so-called surgeon's knot is employed. The size of the ligatures should bear a certain relation, therefore, to the diameter of the vessel, ranging from coarse surgeons' or saddlers' silk, or coarse linen thread, for the largest artery, to fine sewing silk for the smaller vessels. It would probably afford additional security against slipping when the knot is tied, if the thread, instead of being simply waxed, were prepared beforehand by soaking it in melted wax, or in a mixture of wax with a little pitch or resin.

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* Op. cit., page 228.

† Charles Bell. Great Operations, page 58, note.

‡ Paré. § Liston. Elements of Surgery, Am. Ed., 1837, p. 518.

The proper disposition to be made of the free ends of the ligature has long been a subject of dispute, and is not yet altogether settled. In an open wound, healing by granulation, the ligatures are thrown off with the discharges long before the process of cicatrization is far enough advanced to be injuriously affected by their presence. In such a case, therefore, it is best to cut off both ends of the ligature pretty close to the knot. In cases, however, where union of the soft parts takes place by first intention, the knots often become enclosed in the tissues and give rise to irritation which may continue for a long time, until the offending thread is discharged by the formation of an abscess. To avoid trouble from this cause, one end of each ligature is generally left projecting between the lips of the wound, in order that the knot may be drawn out as soon as it becomes detached from the mouth of the artery. A few surgeons still adhere to the bad practice of cutting off both ends of the ligature close to the knot;* others have recommended fine catgut or shreds of split tendon, upon the erroneous supposition that such substances become speedily absorbed when buried in living tissues.

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* Almost all authorities concur in recommending the removal of one end only of each ligature, the practice of cutting them short having been thoroughly tested by Lawrence, Liston and others, who all unite in condemning it. Very lately, however, Heyfelder has de-

Torsion, or violent compression of the walls of the artery, is often employed with advantage for small vessels whose muscular coat is easily stimulated to contraction, but it is both troublesome and unsafe when applied to the larger arteries.

Dr. Simpson,* of Edinburgh, has recently called attention to a very useful invention which he calls "acupressure." It consists in compressing the artery at a single point of its length by means of a strong pin of about the size of an ordinary knitting needle. The pin is thrust through the skin and other tissues of the stump on one side of the artery, in such a direction that its point passes quite near the vessel, against which it is made to press pretty firmly by suddenly changing its direction and thrusting it onward until it emerges on the other side. The pressure should not be very powerful, for a very moderate force suffices to control the circulation in the artery, and any unnecessary compression would only cause inconvenience, and might endanger the vein or nerve. The theory of acupressure is aptly illustrated by Dr. Simpson, who compares the vessel to the stem of a flower fastened by a pin to the lapel of a coat. This method, which is very easy of application, seems destined to more extended use in surgery, and may even deserve a trial as a substitute for the ligature in the treatment of aneurism. Acupressure seems hardly indicated in ordinary cases of amputation, and is not applicable to secondary amputations in inflamed or congested tissues, but in the treatment of secondary hæmorrhage it promises to render good service.

The actual cautery has been properly abandoned for very large vessels, owing to the uncertainty of its immediate action, and the very great liability to the recurrence of dangerous hæmorrhage upon the separation of the eschar. For small arteries, the hot iron is both efficient and easy of application, and might be employed with advantage much oftener than is now the fashion. Caustics, such as the old "button of vitriol," &c., are more painful and less efficient than the actual cautery, and it is almost impossible to confine their action to the bleeding point.

The alleged advantage of many of these substitutes for the ligature is that they do not interfere with union by first intention by interposing any foreign substance between the opposite surfaces of the wound. This advantage, however, is unreal in the case of amputations, for the sharp end of the bone always excites more or less of inflammation, attended by suppuration in the very deepest part of the wound; the ligatures, therefore, do good, for they prevent the formation of sinuses and abscesses by keeping open a free passage

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pronounced the custom of leaving one end as "neither necessary nor useful, but altogether injurious and wholly unjustifiable." (See the New Sydenham Society's Year Book for 1860, page 271.)

* Edinburgh Medical Journal, January, 1860.

for the discharge of the matter. It will generally be found most convenient to collect the several ligatures into a single bundle, bringing them out together at the most dependent part of the wound. It is better to leave but one end to each ligature, and it is well to distinguish the ligature of the main artery from the others by tying a knot in it.

Two cases are occasionally met with in practice, in which it is impossible to close the artery by the ligature. When the nutritive artery of the tibia is divided a little below the point at which it enters the bone, it sometimes throws out a smart jet of blood which does not readily stop of itself. In this case compression with the finger, plugging the hole with wax, &c., have been proposed, but the simplest and most effectual plan is that adopted by Mr. Liston, which consists in driving in a small peg of soft wood and withdrawing it after a day or two by means of a bit of string tied to it. The other case occurs occasionally in old persons, in whom the walls of the arteries are often indurated by calcareous deposits. The most obvious course to pursue in this condition of the vessels, would seem to be the insertion of a plug into its open mouth, tying the ligature over it.

Hæmostatic agents which are applied to the whole surface of the wound, may be divided into two classes, according as they promote or impede the accomplishment of union by first intention. Of the latter class are the ancient methods of searing with a hot iron, cutting the soft parts with a red-hot knife, dipping the end of the stump in hot pitch or oil, strewing the raw surface with astringent or escharotic powders, binding agaric or sponges tightly against the bleeding surface, &c. &c. To these may be added the plans recently put forward of dividing the soft parts by the galvanic cautery,* or by the extemporaneous ligature (ecraseur);† also, the employment of powerful styptic solutions of sesqui-chloride of iron, &c. Some of these methods may be adopted with advantage in certain cases of secondary hæmorrhage, but they ought never to be used in any case in which union by first intention is possible.

Of the local applications which may arrest hæmorrhage without impairing the chances of speedy union, the free use of cold water and the exposure of the raw surface to the action of the air, are among the most important. Dashing or sponging the wound freely with cold water causes the immediate contraction of the mouths of the smaller vessels, but bleeding is very apt to recur whenever reaction takes place. The use of cold applications, therefore, to be effectual, must be continued for a considerable time, and great care must be taken to protect the patient from the discomfort of cold and wet bed-clothes. The exposure of the open wound to the air acts in part, doubtless, by the cooling effect of evaporation, but its chief efficacy is probably due to the stimulating action of the oxygen upon the tissues. A wound thus exposed for a time to the air, is very much less likely to bleed after it is done up than if treated by cold applications. The formation of clots between the opposite cut surfaces, which is one of the greatest obstacles to their early union, is prevented, and the dressings, when once applied, seldom require to be disturbed for several days. If sutures are used, they may be inserted at the time of the operation, while the patient is yet under the influence of chloroform, and loosely knotted together until the time arrives for finally adjusting them.

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* Middeldorpf.

† Maisonneuve.

The local use of strong alcohol as a styptic, has been lately advocated in France.* When used of the strength of 36° Cartier (= 89.6%), it coagulates the albumen on the surface of the wound, forming a greyish-white pellicle, and stops the hæmorrhage from the small vessels. It is also said to hasten the secretion of plastic lymph and to prevent diffuse suppuration by coagulating the albumen of the cellular tissue. At first view, it would seem that the contact of so powerful an agent with a fresh wound would almost of necessity cause the death of its surface, and thus entail a more or less tedious suppuration. Experiments have proved, however, that strong alcohol may be applied to fresh wounds without exciting inflammation, and it seems indeed to favor union by first intention, by thoroughly arresting the hæmorrhage from the small vessels.† Alcohol is moreover powerfully antiseptic, and offers many advantages over the solution of hypochlorite of soda as an application to sloughing and bleeding sores.

Primary Hæmorrhage after Amputation is a very common occurrence, and depends upon the imperfect closure of the smaller vessels, or possibly upon the accidental loosening of a ligature. Under the stimulus of the knife and of the exposure of the cut surface to the air, the muscular walls of the smaller vessels contract so as speedily to arrest the flow of blood from them. This contraction generally continues until coagula have formed, and the natural processes of repair have commenced. In other cases, however, the first arrest of the bleeding is rather the result of faintness than of arterial contraction, and the recovery of the patient from the shock may be attended by a renewal of the hæmorrhage. The best preventive of this accident, as has been already stated, is to leave the wound open to the air until its surface becomes glazed, and if bleeding recurs after the wound has been dressed, it should be immediately opened, so as again to expose its whole surface. If the bleeding artery can be found, it should be tied or twisted; but if the flow of blood ceases of itself, as it often does in such cases, the wound should be left open for an hour or two to glaze. Should the ligatures slip off from the main artery, it should be secured again in the wound, or by an acupressure pin passed through the flap above; in either case, however, the wound should be freely opened, lest the cure should be impeded by the presence of clots between the cut surfaces.

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* Alcohol and Alcoholic Preparations in Surgery, &c. By F. J. Bataillhé and Ad. Guillet. Paris. 1[illegible].

† Alcohol and Alcoholic Preparations in Surgery, &c. Pages 4 and 20.

The term *secondary hæmorrhage* should be confined to those cases in which bleeding occurs from the failure of the natural processes by which the permanent closure of the vessels is effected. It often occurs at the time of the separation of the ligatures, and it may happen at any time by the gangrene or ulceration of the walls of the vessels. At this period a considerable part of the wound may have already healed, and its surface will have become so changed by the morbid action as to make it very difficult to find the end of the artery; and even if it could be easily found, its altered and friable walls are no longer fit to receive a ligature. In this state of things it is folly to tear or cut the wound open in the attempt to apply a ligature to the mouth of the artery. Stuffing the wound with lint or sponges may arrest the hæmorrhage for the moment, especially if aided by the use of styptic solutions, such as the sesquichloride of iron. The actual cautery is even less certain in secondary than in primary hæmorrhage from large arteries. All such local measures for the arrest of secondary hæmorrhage are extremely uncertain, and have besides the great disadvantage of interrupting the healing process.

Secondary hæmorrhage may also be treated by compressing the artery above the wound where its walls are probably healthy. In a few cases it may be sufficient to maintain constant pressure with the tourniquet for several days, until a clot has formed in the mouth of the artery, but as a general rule more decided measures are necessary. Under these circumstances, the choice must be made between acupressure and the ligature of the arterial trunk. Acupressure is readily applied at any desired point in the course of the vessel; it inflicts very slight injury upon the limb, and may therefore be repeated several times if it should be necessary. The needle should be passed into the skin, at a distance to one side of the artery somewhat greater than the depth of the vessel below the surface, and its point carried as nearly as possible beneath the artery. The outer end of the needle is then depressed, so as to compress the artery between the needle and the skin, and the needle is then pushed onward until its point emerges through the skin on the other side of the vessel. Should the pressure of the needle be insufficient to control the bleeding, its action may be aided by a few turns of the twisted suture taken over a compress laid along the course of the vessel.* Acupressure should be practised as near as possible to the open end of the artery, for fear of the continuance of the hæmorrhage by anastomosing branches. This method promises to render excellent service in the treatment of secondary hæmorrhage, and should be fairly tried before undertaking the much more serious operation of tying the femoral artery. Should acupressure fail, we have still the resource of laying bare the artery and tying it, which should be done either very near the end of the stump, or else above the point of origin of the larger collateral branches. Thus in amputations in the upper part of the thigh, it will probably be safest to tie the femoral artery above the origin of the profunda, and in any case, if a first ligature placed near the end of the stump fails to arrest the hæmorrhage, there need be but little fear of danger in tying the artery again at a higher point.*

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* A needle with a curved point, such as has been used by Mr. Startin in the treatment of varicose veins, would probably be better for this purpose than the straight acupressure needle used by Dr. Simpson. (See Braithwaite's Retrospect, Vol. xlii., page 161.)

After the hæmorrhage has been arrested, the chief care of the surgeon should be directed to the promotion of a healthy process of repair by granulation. It is not advisable, as a general rule, to separate the flaps, or in any way to disturb the existing adhesions; but if partial union has taken place in such a way as to form cavities for the lodgment of matter, they should be freely opened at the most dependent part, and the walls of the cavity kept in contact by means of a roller and compresses carefully adjusted at every dressing. If the hæmorrhage has been the result of rapid ulceration or sloughing, it is probably dependent upon impaired constitutional power, and its recurrence is to be opposed by a generous diet and tonic remedies.

[To be continued.]

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

MAY 25th.—*Enormous Abdominal Tumor.*—Dr. BORLAND presented two photographs of a patient with an immense abdominal tumor, and gave the following account of the case: —

"The patient was a widow woman, born in Ireland, and 55 years old. At the time of her entrance at the Channing Hospital (Sept. 12, 1862), she had been between twenty-nine and thirty years in this country. She had borne five mature children, the last about thirteen years ago, and was in good health till five years ago, when this disease commenced. She then first noticed a swelling in the left groin. This increased, and in about one year's time it assumed a central position, and gradually developed to an enormous size. Her ability to walk ceased about ten months before entrance, or in November, 1861. Her appetite and bowels were in fair condition at entrance, but she had imperfect control of her bladder, the urine dribbling away in her bed. Her catamenia ceased about a year before, in September, 1861.

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* See Nélaton, Pathologie Chirurgicale, Tome 1re, page 235. Also for a discussion of the question of the high ligature of the femoral artery, see a paper by Mr. Porter in the Dublin Quarterly Journal for November, 1[illegible], and Braithwaite's Retrospect, Vol. xliii., page 124.

"At entrance she was able to lie in bed in her usual position, which was on her back, inclining, from the weight of the tumor, to the left side; her lower extremities were displaced by the pendulous tumor, so as to present a frog-like shape. Vulva œdematous, anus distended and patulous, pulse 46.

"The tumor was generally dull on percussion, pendulous, overhanging the pubes, ossa ilia and upper portion of the thighs, to a great extent. Its circumference, a little oblique, at umbilicus, measured 4 ft. 9 in.; from xiphoid cartilage to pubes, along umbilicus, 2 ft. 5 in.; from one anterior superior spinous process of ilium to the other, 3 ft. 2 in.

"In October her power to lie down was gone, and she passed most of her time kneeling. In November the increase of the tumor and consequent distension became so great that she objected to being moved, 'fearing she would burst open.' In December she assumed the sitting position, which she retained until her death, by day and by night, as is represented in the accompanying photograph. The legs were greatly spread, the whole body inclining forward and resting on the lower part of the distended abdomen. A rest with a table and pillows was arranged before her, so as to receive her head or arms, as she preferred. On Dec. 20th, girth across lumbar region, at umbilicus, 5 ft. 3 in.; and from spines of the ilia across umbilicus, 4 ft. 5 in. The photographs were taken on March 28th, on which day her circumference across the lumbar region and umbilicus was 5 ft. 4 in., and around nates and umbilicus, 6 ft. 2 in. She died April 17th, the last few weeks of her life being marked by great suffering. There was considerable mortification of the abdominal walls at the time of her death.

"She required constant, watchful care to prevent the formation of bedsores—nor could they be wholly prevented; yet they were kept in subjection, so that after her entrance she was comparatively easy from this source of distress. What little medical treatment she received, was of course only palliative."

May 11th.—*Hæmatemesis.*—Dr. Ayer reported the case.

I. D., aged about 52 years, a man of temperate habits, subject only to tonsillitis, which was frequently followed by suppuration, had a severe attack, more than a year ago, of erysipelas of the face and head, which passed off favorably after a few weeks, and he returned to his usual pursuits. Early in January last, a second attack of erysipelas, more severe than the first, occurred, which continued for several weeks, followed by inflammation of the tonsils and soft palate. This difficulty was succeeded by bronchitis, which continued to trouble the patient till the first of April.

During this period of convalescence, Mr. D. walked out; but there was observable a blueness of the countenance and of the whole body; the whole surface was decidedly dusky. Accompanying this, there was œdematous swelling of the feet and legs, almost of a purple hue. Attention was early directed to the heart; the first and second sounds were almost always distinct, and in other respects its action was normal. The appetite improved; and no feelings of discomfort were experienced.

May 10th, feeling some disarrangement of the stomach, he took, without advice, a dose of infusion of senna and salts. During its operation, vomiting occurred, and a large quantity of coagulated milk, taken for breakfast, mixed with dark, grumous blood, was thrown up. Dr. A. saw him immediately, and a bowl containing at least two quarts of dark blood, with a mixture of curds, was shown him as the results of the last vomiting. A quantity similar and quite as great, Dr. A. was assured, had been thrown away. The patient was sitting up, and expressed himself as feeling very comfortable, and much relieved at the stomach. Acid. hydrochlor., diluted, was ordered. The heart's action was found regular, and the pulse at about 66 per minute. The cough and hoarseness continuing, ol. aselli was ordered, showering the legs with sea-water, and bandages.

There has been no hæmorrhage since; the bronchial symptoms have subsided, and the general health improved. The dusky hue of the skin, though still apparent, is passing away. When Dr. A. last met the patient, he expressed himself as very well, except that the swelling of the feet and legs yet troubled him, though they were improving.

May 11th.—*Aneurism of the Aorta.*—Dr. Ellis showed the specimen.

The patient was a young woman, who had been under the care of Drs. Jackson, Bowditch and C. E. Ware, in the Hospital, at different times. She attributed her disease to a violent blow given her by her husband in May, 1861, shortly after which she was attacked by acute pain across the upper part of the chest and shoulders, and with neuralgia in the left side of the head. There was also slight cough, but no other trouble till the following September, when she began to feel a deep-seated "smarting" beneath the sternum, opposite the second rib, with dyspnœa at night, hoarseness, and considerable difficulty in deglutition. In May, 1862, she noticed a swelling at the seat of pain; and in July all the symptoms became aggravated, she became unable to sit up long at a time, and lost the use of the left arm for a time.

She entered the Hospital in December, 1862, and at that time the tumor extended an inch or more above the upper edge of the sternum in front of the trachea, and down to the third rib. Its main projection corresponded with the right edge of the sternum, and was elevated about two inches, oval, and somewhat lobulated in form. A double pulsation (not violent) was quite perceptible over the whole tumor. The sounds of the heart were normal, and heard a little lower and to the outside of the natural position. An aneurismal bruit was heard in the right breast, chiefly under the clavicle, and about the carotid; but none was heard in the tumor. The respiration was louder in the right chest than in the left, and in the latter was somewhat bronchial. The patient had, at times, a peculiar, hard, hollow, hoarse cough, but never had crowing inspiration.

Her general health improved decidedly for some time after her entrance into the Hospital, and she was often up and about the ward. Early in January last œdema of the feet and legs began, and gradually increased. The symptoms grew more unfavorable till April 10th, when she suddenly expectorated a few ounces of aërated blood, and died in about ten minutes.

At the autopsy, the aorta was found to communicate, by an opening an inch and a quarter in diameter, just below the innominata, with a large and somewhat irregular sac, measuring six inches in its longest diameter, which extended in all directions, except to the right, the median line being but little encroached upon. By its pressure it had caused absorption of the sternum, as low as the lower edge of the third rib. The sac was filled with a firm, almost colorless mass of fibrin, in portions of which layers could be distinguished, and in its lower part was a cavity, two inches in diameter, which communicated with the aorta, through the large opening above described.

The left primary bronchus was much flattened, and so closely adherent to the sac that an opening was noticed after its careful separation. No blood was found in the passage, however, or anything which indicated the seat of a rupture, though the coagulum was not removed from the sac to ascertain this point. The œsophagus was healthy. The heart was normal, except some atheromatous disease of the mitral valve. The lining membrane of the aorta contained many atheromatous points.

In the lower part of the left pleural cavity was about a pint of pus. The walls were uneven and ragged in some portions; elsewhere, the pleural surface was very firmly adherent. The left lung was but eight inches in length, was very firm, and of a slate-grey color. Many yellowish-white points and small cavities gave it the appearance of having been the seat of an extensive inflammatory process. The most distinct cavities were at the apex. A few small, blackish coagula were noticed in some of the bronchi.

The right lung was distended by air, and did not collapse after the removal of the sternum. In the middle and lower lobes were many small ecchymoses. In other respects the lung was normal. The liver was large, and so much congested as to present the nutmeg appearance. The kidneys were considerably larger than usual. The other organs were normal.

[Dr. Bowditch, alluding to this patient at a meeting of the Society some months ago, remarked that the left lung had become materially involved, as shown by flatness on percussion and bronchial respiration, and that it was perhaps getting into the inflammatory state which Dr. Ellis had already pointed out as depending on mechanical obstruction of the primary bronchus. Dr. Ellis's interesting paper on this subject may be found in Vol. III. of the Society's Transactions, page 25 of the Appendix; see, also, a case reported by Dr. Bowditch, in Vol. IV., Supplement, page 239. (*Boston Med. and Surg. Journal*, Vol. Lv., pages 357 and 380, and Vol. Lxv., page 321.)—Secretary.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JULY 9, 1863.

Registration of Boston.—We have received the valuable annual report of the Births, Marriages and Deaths in the city of Boston during the year 1862, prepared with its usual accuracy and completeness by the City Registrar, Mr. Apollonio. The very first page conveys the most material proof we have yet met with that there is a war which is really affecting us at home, although out of hearing of warlike sounds and far removed from the scare and danger of rebel raids. What France suffered chiefly from after the exhaustive Napoleonic wars was the want of fathers to replenish the empty columns of its census tables; and the absence during the past two years of so many of our marriageable and married young men, although but temporary, has already begun to influence the increase of our population in the same way. We find that the number of children born in Boston during the past year was only 5,258, a decrease from the number born the preceding year of 531, and the smallest number for fourteen years. Years of adversity are wont to be followed by a paucity of births, as is well known, and this view is confirmed by consulting the table of births since 1849, for in 1856 and 1857, which were preceded by years of plenty, the births were respectively 5,922 and 5,881, but the latter year being one of great mercantile distress, the number in 1858 fell to 5,597. This, however, is but a slight falling off when compared with the decrease of the past year, with which the element of poverty has had no connection, for it has been one of unusual prosperity to nearly all classes, and particularly to the poor.

The number of births is very evenly distributed among the four seasons--1,361 occurring in winter, 1,285 in spring, 1,287 in summer, and 1,325 in autumn. From a table exhibiting the percentage of births in each ward compared with that of the deaths in the same places, it appears that the ratio of births to the whole number born was less than that of the deaths in Wards 1, 3, 4, 5, 6, and 7, and, as Mr. Apollonio remarks, the births in Wards 1, 3 and 7, the densely-packed residences of our foreign population, have been steadily decreasing for several years, the ratio of deaths being greater than that of births. Of the 5,258 children born, only 1,285 were the offspring of parents born in the United States, while 2,295 were born of parents native of Ireland. The whole number of instances in which both parents were foreign-born was 3,913 or 74.42 per cent., or, in other words, only one fourth of the children born in Boston each year are of unmixed native parentage! When we consider, in connection with this, the fact that of the 2,094 couples married during the year, only 258 of the grooms and 377 of the brides were born in Boston, we readily see that, were it not for the constant stream of immigration hither from the great stock nursery of New England, Boston would soon lose itself in this rapidly increasing tide of foreign blood.

Some curious facts in regard to the colored population are presented, from which it appears that during the last three years the births of females considerably exceed those of the males, and that during the last eight years the deaths exceed the births by nearly 200, and the marriages by 12. "Estimating the white population at 180,000, the proportion of births to the whole number is as one to 34.50; while the ratio of colored births is as one to 49 in a population of 2,200. It is not the less interesting to observe, that while this difference in the natural growth of the two races is so strikingly in favor of the white, the marriages among the colored race were in the ratio of one to 58 of the population, while among the former they were only as one to 87.54! Thus it is shown, that in each of the aspects in which this subject may be viewed, the colored race seems, so far as this city is concerned, to be doomed to extinction."

The number of twin births during the year was 47, in 14 of which both children were males, in 13 both were females, and in the other 29 there was one of each sex.

The whole number of marriages, as above stated, was 2,094, being 72 less than that of the preceding year. The whole number of native-born grooms was 997, or 54.16 per cent., and of native-born brides 991, or 47.32 per cent. of the whole number. Of the 1,097 foreign-born grooms, 59.52 per cent. were born in Ireland.

The deaths during the year amount to 4,120, which is an increase of 155 over the number that died in 1861, and indicates a death-rate of 1 in 44.17 of the whole population. No epidemics have prevailed, although smallpox threatened at one time to burst into vigorous activity. It will continue to escape from control every few years and kill a few hundred persons, until the city enforces a more stringent rule in regard to vaccination. The deaths were also very evenly distributed among the different seasons, viz., in spring 1,020, in summer 1,087, in autumn, 1,004, and in winter 1,009. The largest number of deaths in any one month, 426, occurred, as usual, in August. The causes of death, numerically stated, are as follows :—Accidents, 142 : abscess, 7 ; anæmia, 10 ; aneurism, 3 ; apoplexy, 56 ; asthma, 5 ; inflammation of the bowels, 34 ; disease of the bowels, 15 ; inflammation of the brain, 29 ; congestion of the brain, 45 ; disease of the brain, 82 : disease of the bladder, 5 ; bronchitis, 104 ; cancer, 50 ; carbuncle, 2 ; catarrh, 2 ; cholera, 2 ; cholera infantum, 238 ; chorea, 1 ; colic, 1 ; cholera morbus, 22 ; consumption, 739 ; convulsions, 140 ; croup, 114 ; cyanosis, 14 ; debility, 32 ; diabetes, 5 ; diarrhœa, 87 ; diphtheria, 46 ; dropsy (all kinds), 97 ; dysentery, 63 ; epilepsy, 21 ; erysipelas, 20 ; fever (unknown), 3 ; do. bilious, 6 ; do. remittent, 1 ; do. scarlet, 236 ; do. typhoid and typhus, 85 ; gangrene, 12 ; gastritis, 23 : gout (stomach), 1 ; hæmorrhage, 25 ; heart, diseases of, 115 ; hernia, 5 ; hip, disease of, 1 ; homicide, 6 ; hydrocephalus, 203 : infantile diseases, 108 ; influenza, 1 ; insanity, 4 ; intemperance, 50 ; intussusception, 1 : jaundice, 5 ; kidneys, diseases of, 18 ; laryngitis, 1 ; liver, diseases of, 32 ; lungs, congestion of, 38 ; lungs, inflammation of, 218 ; lungs, diseases of, 11 : marasmus, 96 : malformation, 1 ; measles, 78 ; old age, 81 ; paralysis, 59 ; peritonitis, 12 ; phlebitis, 1 ; pleurisy, 20 ; polysarcia, 2 ; premature birth, 47 ; prostate, disease of, 1 ; puerperal diseases, 26 ; purpura, 8 : pyæmia, 1 ; rheumatism, 14 ; scrofula, 19 ; sore throat, 23 : spine, diseases of, 9 ; smallpox, 13 ; suicide, 15 ; sunstroke, 1 ; stomach, diseases of, 4 ; syphilis, 14 ; tabes mesenterica, 3 ; teething, 22 : thrush, 6 : trismus nascentium, 2 ; tumor, 9 : ulcers, 4 ; uterus, diseases of, 3 ; unknown, 41 ; whooping cough, 39 : worms, 1 ; wounds (gunshot), 3. Total males, 2,086 ; females, 2,034. Cancer destroyed 50 persons, 11 males and 39 females, and its local manifestations were as follows :—breast, 10 ; stomach, 8 ; uterus, 7 ; unknown, 6 ; abdominal, 5 ; liver, 3 ; rectum, 2 ; neck, 2 ; leg, 2 : side, face, tongue, head, and bladder, 1 each. Consumption, as usual, carried off a large number of victims, the deaths from this cause making 18.57 of the entire mortality from disease Of these, 284 only were born in the United States, 336 in Ireland and 114 in other foreign countries. Forty-two per cent. of the deaths from this disease took place in Wards 1, 7 and 12, 114 occurring in South Boston alone.

From a table showing the per centage of deaths in certain periods of life, it appears that 22.18 per cent. of the mortality was among infants under one year of age, 23.66 of those between 1 and 5, while only 4.41 was of children between 5 and 10, and 1.55 per cent. of those between 10 and 15. More than 50 per cent. of the whole number of the deaths were of children under 10 years old. Of those who died, 26 per cent. only were of New England origin, and 52 per cent. were of Irish parentage alone. The number of still births during the year was 361.

FOSSIL MAN.—Not long since, in some remarks upon the *Antiquity of Man*, we alluded to the discovery of M. Boucher de Perthes in the ancient drift deposit of the Somme valley, of flint implements wrought by the hand of man and associated with the bones of extinct mammalia, namely, Elephas primigenius, the cave-bear, cave-hyæna, &c. On the 28th of March this same indefatigable gentleman, while engaged in his explorations, was fortunate enough to find the only link wanting to complete the chain of evidence as to the authenticity and importance of his previous labors, for in the high level gravel beds of Moulin-Quignon near Abbeville, and beneath a layer of rough flints, he found a human jaw. This discovery, of so vast importance both to anthropology and to geology, necessarily produced great excitement in the scientific world, and strong doubts as to its authenticity were expressed by men of science in England. On May 15th, a congress of palæontologists was held at Abbeville, and the whole evidence in the case was thoroughly examined. The English men of science present, Dr. Falconer, Mr. Prestwich and Prof. Busk, who had previously been loud and strong in their statements as to its falsity, were obliged to admit the accuracy of the views of such men as Milne-Edwards, Quatrefages, Lartet and others, who had never doubted the authenticity of the specimen. The following are the conclusions arrived at, unanimously, by the commission :—" 1. That the jaw found at Moulin-Quignon by M. Boucher de Perthes is really fossil. 2. That it was extracted by that gentleman himself from this virgin and undisturbed bed. 3d. That the flint implements which had been said to be fabricated by the workmen are incontestably ancient."

The specimen, which is said to resemble the jaw of the Esquimaux more than that of any other race now living, is thus described by Prof. Busk :—

"The black coating was washed off readily by means of a sponge, and the residuary spots in the minute hollows were removed by the aid of a tooth-brush. The general color of the washed surface was a light buff, mottled with brown stains. The outer surface was tolerably smooth, presenting little indication of the erosion commonly seen in old buried bones. There was no appearance of dendritic patches either on the exterior or within, and no infiltration of metallic matter. The substance of the bone was dry and friable, especially towards the alveolar border, but, on the whole, it was tolerably firm under the saw, and the fresh section afforded a distinct odor of sawn bone. The internal cancellated structure was of a faint brownish tinge, and the cells were free from any incrustation. The most remarkable appearance observable in the section was the lining of the dental canal with a thin layer of fine gray sand, free from any admixture with the black metallic matrix which blocked up the orifice of the canal below the condyle. The section of the fang showed that the dentine, so far as exposed, was white, and in no respect different from that of a recent tooth. The enamel was white and brilliant. The socket towards the upper part was not completely filled by the fang, and the interval was partially occupied by black matrix and sandy particles."

The Carney Hospital, in Boston.—The Carney Hospital, named in honor of its founder, our respected fellow citizen, Andrew Carney, Esq., is now ready for the reception of patients.

The site is an admirable one for such an institution, containing about thirty-seven thousand square feet of land, situated on the top of the hill, near the Reservoir, South Boston, overlooking the City, and commanding a fine view of it, the harbor, and the surrounding country, open on all sides, allowing a free circulation of pure air.

The interior arrangements include every thing required for the comfort of patients. The number of beds is at the present time limited to between thirty and forty. The present building will soon be replaced by a large and handsome brick edifice, capable of accommodating a much greater number of patients, the erection of which will be commenced early next spring.

The hospital is under the charge of the Sisters of Charity, whose Superior, Sister Ann Alexis, of the St. Vincent De Paul Orphan Asylum, has been long known and esteemed by our citizens for her unwearied exertions in behalf of the orphans committed to her care, and whose labors have been crowned with such signal success. This simple announcement is sufficient guaranty that every thing will be done for the comfort and welfare of the patients that careful nursing and unremitting attention can effect.

No distinction of nation, creed or color, will be observed in the admission of patients, and all diseases and injuries, medical and surgical (except contagious and infectious), will be received. The hospital is intended for both paying and free cases, and to afford the greatest amount of good to the largest number. This will necessarily exclude chronic and incurable cases from admission, or a lengthened stay, to the exclusion of cases that might derive much benefit from its treatment.

Applicants for admission may apply personally, or by letter, to Sister Ann Alexis, at the hospital, Old Harbor Street, off Dorchester, opposite Fifth Street, or at the Orphan Asylum, Camden Street; to Dr. Thaxter, 370 Broadway, South Boston, and to Dr. J. G. Blake, 95 Harrison Avenue.

The medical staff consists of Dr. D. McB. Thaxter, Visiting Surgeon; Dr. J. G. Blake, Visiting Physician; Dr. Winslow Lewis, Consulting Surgeon; Dr. Henry I. Bowditch, Consulting Physician.

Decapitation.—The following is an extract from the London *Times* in relation to some experiments which have recently been made in the Paris slaughter-houses. They seem to show that the guillotine even, which is considered the most merciful instrument of penal execution, may not so completely destroy the reflex action of the muscular system as to prevent those terrible phenomena which bear so strong a resemblance to those of life in the corpse.

"The Conservator of the Paris slaughter-houses, being of opinion that the mode of slaughtering oxen by knocking them on the head with a heavy metal instrument must cause the animal excessive pain, endeavored to discover another mode to avoid this suffering, and at the same time to preserve the slaughtermen from the danger to which they are exposed in the performance of this disagreeable duty. He thought that enervation would accomplish his object, and his opinion was founded on the doctrine taught by physiologists, who assert that the separation of the spinal marrow at once destroys animal life. Experiments were tried on more than 100 oxen, and it was demonstrated that although the ox was more quickly put to death, his sufferings were not the less excruciating, inasmuch as his entire vitality was preserved, and that death did not ensue until after an agony of fifteen or sixteen minutes. These experiments were repeated on calves and sheep, and, in place of merely cutting the spinal marrow, the head was separated from the body, in order to observe the degree of vitality which would still remain in each of the separated parts. A calf was suspended, and a butcher's boy cut off his head with a knife. The operation was accomplished in a quarter of a minute. The head was immediately placed on a table, and it lost two ounces and a half of blood in the space of six minutes. During the first minute all the muscles of the face and neck were agitated with rapid convulsions, and during the two following minutes the convulsions assumed another character. The tongue was stretched out of the mouth, which opened and closed alternately; the nostrils opened, as if the animal experienced a difficulty of breathing. The convulsions became more active when the tongue or nostrils were pricked with a needle. When the hand was applied to the mouth or nostrils, respiration was felt to be continued by the air entering and coming out. When a finger was brought within an inch of the eye, in the direction of the pupil, the eye was quickly closed, as if it wished to avoid the touch of the finger, and the same result followed at certain intervals. At length the eye did not close until the eyelid was touched. It was remarked that the eye remained closed as long the finger remained in contact with it. These phenomena became gradually weaker, and ceased entirely after four minutes. Even then, when the spinal marrow was pricked with a needle, the convulsions recommenced in the entire face, tongue and eyes. After the sixth minute all contraction ceased. While these experiments were being performed, the body, which remained suspended, was greatly agitated. The agitation ceased gradually, and was replaced by contractions, which continued more than an hour. But this was always observed, in whatever manner the throat was cut. Forty calves and fifty sheep were decapitated, and they all presented the same phenomena. The director of the Paris slaughter-houses convinced himself by these experiments that an ox suffered more by being decapitated than by being struck down with a heavy bar of iron; and that the bar, by producing immediate stupefaction, prevents the animal from suffering, while the bleeding, immediately effected, deprives him of life before the head recovers sensation."

ANOTHER DEATH FROM CHLOROFORM.—We wonder, as nearly every English journal brings to us the account of still another death from chloroform, how many sacrifices will yet be required to open the eyes of the public there, for of the profession we have no hope, to the facts that chloroform may kill anybody who inhales it, while ether is capable of producing the same anæsthetic effect with only a little more trouble, but with entire safety. The last victim was a distinguished member of our own profession, Mr. F. Wakefield Skey, M.R.C.S., the following account of whose death is taken from the *Lancet* of June 6th.

"The profession to whom he is so deservedly well known will sympathize with Mr. Skey in the severe loss sustained by him in the death of his eldest son, which took place on Friday last under the following melancholy circumstances:—The deceased had long suffered from a severe neuralgic disease, to obtain relief from which he frequently had recourse to chloroform, but with only temporary benefit. More than once he carried the anæsthesia to such an extent as to cause considerable alarm, especially on one occasion, when, acting as house-surgeon to St. Bartholomew's Hospital, he remained so long under the influence of the subtle agent, as to necessitate recourse to galvanism and to artificial respiration. On recovery he assured his anxious and deeply afflicted parents that it was the last time he would use it without advice. The promise he religiously kept until Friday last, when an unusually severe paroxysm came on, and having to meet his father and several friends at dinner, he again had recourse to his old, but on this occasion fatal, remedy. How long he had succumbed to the active agent is not precisely known, but he was found in his chamber, kneeling at a chair, with a handkerchief to his face, which had contained the chloroform. He immediately received every attention, but too late; the vital spark could not be recalled. The deceased, who was only 31, had attained to considerable excellence in music, poetry and painting."

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, July 4th, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - - -	43	34	77
Ave. mortality of corresponding weeks for ten years, 1853—1863,	36.2	30.2	66.4
Average corrected to increased population - - - -	00	00	73.16
Death of persons above 90 - - - - - - -	1	1	2

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
12	3	0	6	0	1	0	1

Erratum.—In the Journal of last week, p. 449, 6th line from top, for "scientific" read *mercantile.*

Books and Pamphlets Received.—On the Medical Selection of Lives for Assurance. By Wm. Brinton, M.D. From third London Edition. (From the American Editor. Dr. W. W. Morland.)—Report of the Board of Health of the City of Sacramento, Cal., for the year ending March, 1863.—Morbus Coxarius. By Louis A Sayre, M.D.—New Views of the Cause, Prevention and Cure of Yellow Fever. By J. W. Redfield, M.D. (From the Author.)

Journals Received.—Edinburgh Medical Journal, June, 1863.—Chemist and Druggist, Vol. x., No. 46.—American Medical Times, Vol. vii., No. 1.—Medical and Surgical Reporter, Vol. x., No. 8.—Eclectic Medical Journal, July, 1863.—Chicago Medical Examiner, Vol. iv., Nos. 3 and 4.—Dental Cosmos, June, 1863.—Pacific Medical and Surgical Journal, May, 1863.

Deaths in Boston for the week ending Saturday noon, July 4th, 77. Males, 43—Females, 34.—Accident, 3—apoplexy, 2—inflammation of the bowels, 2—congestion of the brain, 2—disease of the brain, 2—bronchitis, 2—cancer, 1—cholera infantum, 2—cholera morbus, 2—consumption, 12—convulsions, 1—croup, 3—debility, 1—diphtheria, 1—dropsy, 3—dropsy of the brain, 1—drowned, 3—dysentery, 1—typhoid fever, 5—disease of the heart, 3—disease of the kidneys, 1—disease of the liver, 2—congestion of the lungs, 1—inflammation of the lungs, 6—marasmus, 1—old age, 1—rheumatism, 1—teething, 1—thrush, 1—unknown, 9—whooping cough, 1.

Under 5 years of age, 20—between 5 and 20 years, 11—between 20 and 40 years, 19—between 40 and 60 years, 11—above 60 years, 16. Born in the United States, 48—Ireland, 21—other places, 8.

THE
BOSTON MEDICAL AND SURGICAL JOURNAL.

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CASE OF PNEUMONIA FOLLOWING GUN-SHOT WOUND OF THE CHEST.

By J. S. Lombard, Medical Cadet, U.S.A.

[Communicated for the Boston Medical and Surgical Journal.]

A private of the 134th Reg't Pa. Vols., æt. 25, of medium height, and possessed of a remarkably muscular frame and vigorous constitution, was admitted into the Hammond General Hospital, Point Lookout, on the 16th of December, 1862, with a gun-shot wound of the left side and breast. The wound was received at the battle of Fredericksburg, on the 13th, and was caused by a round ball, which entered the left side just below the axilla, about over the fifth rib, which it injured slightly, and then passing upwards and inwards lodged superficially a little below the left clavicle, and about two inches from its sternal extremity, from which place it was extracted soon after the receipt of the wound. At the time of the patient's admission into the Hammond General Hospital, his general condition was highly favorable, his health having been excellent ever since enlisting. He made light of his wound, which was doing well, and appeared to cause him little or no trouble. The position of the wound being such as to render injury of the lung probable, a careful examination of the chest was made, and the patient closely questioned; but both the physical examination and the interrogation of the patient failed to elicit any evidence of lesion of the lung. The respiration was perfectly normal over the whole of the chest, and according to the statements of the patient there had been no hæmoptysis, dyspnœa, or other signs of injury of the lungs, either at the time of receiving the wound or since. Nothing of interest occurred in the progress of the case until Dec. 18th (two days after admission into the Hospital), on the afternoon of which day the patient had a severe chill, which lasted about two hours, and was then succeeded by fever, which lasted several hours more. On the following morning the patient appeared about as well as usual, but in the afternoon he suffered another attack of chill and fever. Quinine had been administered in the meantime, and after the last-mentioned attack he had no return of the disorder. He now appeared to be as well as when admitted into the Hospital, and this state of things continued until Dec. 24th; but on the morning of that day the patient complained of sharp pain in the left side, about the region of the nipple, accompanied by some dyspnœa; his pulse was about 95 and hard, and his skin hot and dry. A physical examination of the chest was immediately made, and fine crepitation, mingled with faint bronchial respiration, was detected in the upper lobe of the left lung. Towards evening the patient began to cough, and to expectorate small quantities of mucus. He passed a very restless night, and on the following morning (Dec. 25th) commenced to expectorate nearly pure blood in considerable quantities whenever he coughed; the cough and dyspnœa also had increased considerably. The wounds of entrance and exit were dark and sloughy in appearance. On placing the ear upon the chest, the crepitation was found to be fainter than on the preceding day, and the bronchial respiration stronger; dulness on percussion and increased vocal resonance were also present; the pulse, skin, &c., were about the same as on the preceding day. On the 26th the crepitation had disappeared from the upper portion of the left lung, and had been superseded by bronchial respiration. Fine crepitation was now detected in the lower lobes of both lungs. The pulse was now 110, and feebler than on the previous day, and the dyspnœa had become very severe. Towards the evening of this day the expectoration, which had continued up to this time to be of nearly pure blood, began to assume the rusty hue of pneumonic sputa. On the 27th, auscultation and percussion showed no marked changes, but the patient's general condition was very unfavorable, his pulse being now very quick and feeble, and his strength much reduced. On the 28th and 29th there was no great change in the case, but on the morning of the 30th the patient was evidently sinking. The lungs were now examined for the last time, and bronchial respiration, with dulness on percussion, was found to be present over the whole of the left side, and also over the lower portion of the right. In the afternoon the patient became delirious, and continued in this state until evening, when he died quietly.

The body was examined the following morning (Dec. 31st, 1862). Dissection discovered the track of the ball under the integuments of the thorax, from the wound of entrance to the place from which it was extracted, but the most rigid examination failed to detect any communication whatever between the course of the ball and the cavity of the thorax, the walls of the latter being entire at every point. The lower lobes of both lungs were in a state of red hepatization. The upper portion of the left lung was of a dark green hue, infiltrated with very offensive pus, and so completely softened and disorganized that its removal entire from the body could not be effected. The pleura over this part of the lung was somewhat inflamed, but the inflammation was chiefly confined to its posterior and lateral portions, whereas that portion which lay under the course of the ball presented little or no deviation from the normal condition. All the other viscera were carefully examined, and were found to be healthy. After the examination, an incision made into the left shoulder discovered a small collection of pus, but an examination of the other joints failed to discover anything similar. The abscess was not directly connected with the wound, so far as could be ascertained by dissection.

The treatment, throughout the case, was expectant, with the exception of the administration of stimulants towards the last.

This case appears to me to present a fair example of a gun-shot wound of the chest, accompanied by pulmonary inflammation independent of the injury or only indirectly connected with it, and also to show how errors in the diagnosis of such cases may be made. When the man was first seen, the absence of all indications of injury of the lung (excepting the position of the wounds of entrance and exit) rendered it probable that the lung had escaped injury, and the *post-mortem* examination proved this conclusion to be correct; but on the appearance of signs of pulmonary inflammation, after taking into fair consideration the facts that, on the one hand, inflammation of the pulmonary organs *may* arise from wounds of the walls of the thorax which do not penetrate the cavity of the latter, and that, on the other hand, the absence of signs of pulmonary injury at the time of the receipt of a wound or afterwards, does not prove *conclusively* that the lung has escaped harm, the probabilities seemed to be in favor of the case being one of penetration of the thorax, with lesion of the lung, and had no autopsy been made this conclusion would have been final. But if the patient had recovered from the attack of pneumonia, then the not unnatural conclusion would have been arrived at, that the case was one of recovery from gun-shot wound of the lung, which, of course, would have been entirely incorrect. Without disputing the possibility of recovery from gun-shot wounds of the lungs, may not some of the cases of recovery be explained by the case I have here reported?

Point Lookout, Md., Jan. 10th, 1863.

ON AMPUTATION OF THE THIGH.

By John Green, Fellow of the Massachusetts Medical Society, late Acting Assistant Surgeon U.S.A.

[Concluded from page 461.]

Dressing and After-treatment of Stumps.

Before considering the subject of dressings, it may be well briefly to review the history of the processes of repair so far as they are concerned in the healing of the wound made by amputation. First of all, it must be remembered that we have to deal with two totally distinct classes of tissues:—1st, The soft parts, consisting of skin, areolar tissue, muscle, and dense fibrous tissue, which may all heal by the processes of immediate union, primary adhesion, adhesion of granulating surfaces, or by the slow process of granulation and cicatrization; and 2d, the bone, in which, even in subcutaneous injuries, as in simple fracture, the process of repair does not begin until after eight or ten days[*] and upon whose sawn extremity granulations do not appear until the tenth day or later.[†] Now it is evident that the soft parts may unite by either of the three methods first mentioned, before the slightest change has taken place in the bone, for the soft parts probably never unite with the compact tissue of the sawn end of the bone by any much speedier process than the slow one of granulation. It is idle, therefore, to talk of the complete cure of a stump by first intention, for the sharp end of the bone will act for a considerable time as a foreign body, and will always excite more or less of suppuration in its neighborhood.[‡] We must not, therefore, be over anxious about the ligatures, for they really act beneficially by keeping open a convenient outlet for the discharges, which might otherwise burrow among the muscles and at last find vent in an abscess.[§]

In dressing a stump, then, we must aim to fulfil two distinct indications:—1st, To promote the union of the soft parts; and, 2d, to protect the soft coverings from the sharp end of the bone.

I have already insisted upon the importance of so arranging the successive steps of the operation as to secure a just relative proportion between the different tissues left for the purpose of covering the bone. The bone must be thoroughly protected by the preservation of a sufficient length of the deep muscles, which should, in turn, be covered either by integument or by a thin flap composed of skin and muscle. According as these conditions have been fulfilled, will be the possibility of effecting a cure mainly by first intention. The soft parts should be so ample as to admit of the complete approximation of the opposite cut surfaces throughout their entire extent, and that without exposing them to the slightest tension. Tension of the coverings is one of the most fruitful causes of failure in the attempt to secure union by first intention, and the irritation which it produces is often the beginning of a formidable train of accidents. Rather, therefore, than to expose the soft parts to any strain in the early dressings, the wound should be left open, according to the precepts of the older surgeons, and allowed to heal by cicatrization from the circumference to the centre.

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[*] Paget. Lectures on Surgical Pathology. Lecture XI., on Repair of Fractures.

[†] Ibid. Lecture IX., on Healing by Granulation.

[‡] See Sédillot. Op. Cit. Tome 1re, page 344. Also Dupuytren, Leçons Orales, tome 2me, p. 403 et seq.

[§] There has been much unprofitable discussion during the present century between the partizans and opponents of the practice of healing stumps and incised wounds generally by first intention. The early advocates of this plan of treatment in amputations were English surgeons who practised chiefly in the provinces, amid favorable atmospheric and hygienic influences. The chief opponents of early union were found among the distinguished surgeons of Paris, who have always had to contend against the enormous sanitary evils which exist in the great public hospitals of that city. As often happens, in such disputes, both parties were right, aud each adopted that line of practice which local experience had shown to be best. In country practice, and even in towns of moderate size, wounds generally heal promptly and without much suppuration. In large cities, on the other hand, and especially in city hospitals, complete union by first intention is excessively rare, and the union of the skin and superficial parts only may do mischief, by confining the products of the suppuration of the deeper tissues. In the case of dressing after amputation, the whole point at issue is, whether we ought accurately to close the whole wound by sutures and plasters, or keep a channel open for the escape of the pus, by interposing a narrow strip of linen between the opposite surfaces. Even this difference is more in theory than in practice, for in a great many cases the ligatures act as a seton in maintaining an outlet for the discharges, and it matters very little whether we trust to the ligatures alone, or add to the size of the bundle by a roll of charpie or a strip of linen. No author at the present day, so far as I know, advises a return to the ancient practice of leaving the wound entirely open and waiting for it to heal by the gradual drawing in of the integuments, from the circumference to the centre, by the contraction of the cicatrix. The difference between the hygienic influences of city and country can hardly be too strongly presented, for it has a most important bearing, both upon the treatment to be adopted as well as upon the probable result of a surgical operation. Thus many operations which are attended with very considerable danger in the practice of the great metropolitan hospitals, seem to be almost unattended by serious risk when performed in the country. A notable illustration of this point is found in the statistics of lithotomy as performed in the Western United States and the hospitals of Paris and London.

In order to promote the union of the soft parts, they must be held in accurate contact with each other, skin with skin and muscle with muscle. This contact with the muscles should be aided by moderate pressure, applied to opposite sides of the stump, near its extremity, by means of soft compresses and a roller.[*] The margins of the skin should also be brought together and held in place by the interrupted or twisted suture, or by strips of plaster. In circular amputations the wound can, in most cases, be easily closed by strips of plaster alone; but in the flap operations, a few points of suture are generally employed in addition. If the interrupted suture is used, the threads may be inserted at the time of the operation and loosely knotted together until the time arrives for finally adjusting them. The twisted, or hare-lip suture, holds the parts more firmly in place than any other, but its very firmness may become a source of serious danger should swelling or retraction of the soft parts take place. The small spring forceps, called "*serres fines*," have at least the advantage that they slip off before the tension can become excessive. If sutures are used they must be carefully watched, and removed upon the first sign of their causing pain or irritation. As a general rule they should be supported by strips of plaster placed between them, taking care, however, not to cover the wound so closely as to confine the discharges. Plasters are, on the whole, safer than sutures, especially if the case is to be left to the care of unknown or unskilful persons, and they can almost always be applied with sufficient exactness if the operation has been even tolerably performed.[†] If the common adhesive plaster (emplastrum resinæ) is used, it should be freshly spread, as it is apt to become brittle and non-adhesive when old. As commonly prepared, it is spread upon heavily-sized cotton cloth, and consequently separates from the cloth when wet. It is much more useful when spread upon old or unglazed cotton, for it then penetrates the fibre and renders it partially water-proof. As all resinous plasters are somewhat irritating to fresh wounds, it may frequently be advantageous to employ the isinglass plaster of Liston, which, when properly prepared, is nearly identical with the best water-proof court-plaster.* It should be spread upon some fabric impervious to water, or it will be loosened by the slightest moisture.

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[*] In the operation with a single flap, the nature of the support given to the flap must depend upon its form and position; in Mr. Teale's operation no such support is needed.

[†] I have been led to the discussion of this question by the experience of several cases occurring in the army, in which serious and sometimes fatal accidents appeared to depend upon the tension of flaps confined by strong thread or wire sutures. See, also, Larrey's Campaign in Saxony, in the last volume of the Memoirs.

There is often considerable difficulty in applying plasters neatly and firmly, owing to the elasticity of the soft parts causing the wound to gape. To obviate this inconvenience, Liston was in the habit of securing the flaps by means of a few sutures, removing them as soon as the plasters become fixed. I have often found it convenient to apply the strips of plaster in the following manner, suggested by the common uniting bandage. The strips are applied in pairs, one strip of each pair being made narrower than the other, so that it may pass easily through a button-hole cut transversely in the wide strip, at about the middle of its length. The wide and narrow strips are applied alternately to the sides of the stump, so that the holes in the wide strips fall a little above the cut edge of the integument; the free end of each narrow strip is then passed through the hole in the opposite wide one, and by drawing upon the two ends the lips of the wound are closely approximated. When everything is adjusted, the ends of the plasters are secured by sticking them down smoothly in the position they happen to assume. Used in this way the plasters offer many of the advantages generally ascribed to sutures, and they can besides be readily loosened and re-adjusted without disturbing other parts of the wound.†

The next condition for the accomplishment of speedy union is the absence of inflammation,‡ for the slightest inflammatory action is sufficient to prevent immediate union, and but a slight degree of it is consistent with union by primary adhesion. The dressings, therefore, for the first few days, should be such as are least likely to irritate the freshly divided tissues; all greasy applications should be avoided, and the parts should be disturbed as little as possible. The free use of water at this period generally does more harm than good, for it loosens the plasters and thus disturbs the apposition of the parts. Perhaps the best dressing is a narrow compress of soft linen, moistened with water and covered with oiled silk[*] to prevent evaporation; this will not need to be removed oftener than once or perhaps twice a day, and it is both neat and unirritating. After suppuration begins, the lateral compresses should be carefully adjusted at each dressing, so as to keep the granulating surfaces in contact with each other, and to prevent the accumulation of pus between them. At this stage, if the suppuration is abundant, no other dressing is required than lint or tow in sufficient quantity to absorb the matter discharged in the interval between two successive dressings;[†] should the discharges be scanty, however, it will be best to apply to the wound a narrow strip of linen greased with tallow or simple cerate. Saturating the dressings with water can be of no conceivable use during the progress of granulation; it is a slovenly practice, and generally causes much discomfort to the patient by wetting the bedding. The stump should be lightly covered, and protected from the weight of the bed-clothes. An excellent covering for the end of the stump may be made of a handkerchief, or a square piece of cotton or linen cloth, confined by a couple of turns of a roller; this will prevent the access of flies to the wound, and will thus afford an effectual protection against the development of maggots.[‡]

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* Liston's plaster, as finally improved by the inventor, "is composed of a solution of isinglass in spirit spread on slips of oiled silk; or silk glazed on one side only, and on the unglazed side." (Liston's Practical Surgery, ch. ii., on the Union and Dressing of Wounds.)

† Since adopting this plan in the army hospitals, I find that something very similar is described and strongly recommended by Prof. Nathan Smith. (Op. cit., page 222.)

‡ See Paget's Lectures on Surgical Pathology, chap. ix., p. 133 of 2d Am. Edition.

The danger of accident from the pressure of the bone against the soft coverings depends, as has already been shown, upon the progressive retraction of the muscles, and it must be met, if at all, by combating this cause. This may be effected in two ways:—1st, by position, which, however, is more effectual in the leg than in the thigh; and 2d, by the application of a roller to the whole length of the stump.

The muscles of the thigh, whose tension is affected by changes in the position of the limb, are chiefly those upon the posterior and inner aspect of the femur.[§] The great mass of the muscles of this region, which arise from the tuberosity of the ischium, are put in a state of tension when the end of the stump is elevated, but are relaxed when the thigh is extended nearly in a line with the body. Three of the four anterior muscles, on the other hand, arise from the femur, and are therefore unaffected by the change in position. A change, therefore, from the elevated position which the stump is apt to assume, to the horizontal, may suffice, of itself, to relieve a slight degree of tension of the coverings, and is, besides, a valuable adjuvant to the method next to be described.*

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[*] Instead of oiled silk we may use freshly oiled paper, rubber cloth, sheet rubber, tin foil, thin sheet lead from tea chests, or, on an emergency, a thick leaf, or a bit of soft bark, &c. &c.

[†] Some absorbent material is absolutely required in army practice, where there is no time for superfluous dressings. For this purpose there is probably nothing better or cheaper than tow or oakum; lint answers well, but old linen is of more value in the form of rags than when scraped or ravelled. Cotton batting does not absorb liquids readily.

[‡] The presence of maggots in a wound is a disgrace to the dresser; they cause great irritation and utterly prevent union by first intention, and although in some cases of sloughing wounds they may hasten the "cleaning" by expediting the fall of the sloughs, the same end may be much better attained by the use of stimulant and antiseptic lotions.

[§] The long head of the biceps, the semi-membranosus, semi-tendinosus and adductor magnus.

The use of the roller to prevent muscular retraction depends upon the principle that when a muscle contracts in length it increases proportionally in diameter; if, therefore, this increase in diameter be prevented, the muscular contraction cannot take place; and this is as true of a limb as of a single muscle. The remedy, then, for the tension which depends upon the retraction of the muscles, consists simply in applying a roller firmly and evenly to the whole stump as far as the next articulation, thus compressing all the muscles and effectually preventing their contractions. The roller should not be changed until it becomes soiled or loosened, and it is well to apply it in two parts, letting the main roller extend to within two or three inches of the end of the stump, and finishing the operation with a second shorter piece which may be changed at each dressing. The use of the roller in the manner and for the purpose just described, although taught by almost every surgeon of note who has written on the subject of amputations,† has, nevertheless, fallen of late into comparative neglect. A few surgeons,‡ who have adopted flap methods with flaps of very great length, have been able safely to dispense with the roller in a great majority of cases, but even after the best operation the flaps may slough, or unexpected retraction may take place, so as, after all, to render some artificial support necessary. In the common circular operation, as performed by Gooch, Alanson, Benj. Bell, Hey, and John and Charles Bell, the roller always formed an essential feature in the after-treatment, although these surgeons all inculcate the necessity of sawing the bone as high as it can be denuded, by the use of the retractor, after dividing the muscular and tendinous attachments at the linea aspera. I am not prepared, however, even in the case of circular operations, to deny the possibility, under favorable circumstances, of sawing the bone high enough to enable the dresser safely to dispense with the roller, but I am confident that, to ensure this safety, the bone must be sawn so much higher than is the usual practice as to render the circular methods, in many cases, extremely difficult of performance. With the exception of a very few double-flap operations, I have scarcely ever seen a stump of the thigh in which the use of the roller was not indicated during the greater part of the after-treatment; and whenever it has been tried, I have never known it fail to produce very decided benefit.§ In applying the roller, certain precautions are necessary—it should be applied from above downwards, beginning in the vicinity of the articulation next above the point of amputation, and it should extend nearly or quite to the extremity of the stump, in order that it may compress the muscles of the limb throughout their entire length. Thus in the thigh, a few turns should be first taken around the pelvis, and the thigh approached in the manner known as the "spica." If the soft parts are deficient, or if they show a tendency to retract to an unusual degree, the bandage must be very firmly but smoothly applied, and for this purpose the roller with two heads is to be preferred. There is scarcely any danger of rolling a stump too tightly, if only the pressure is equally distributed, and although great trouble may be caused by the unskilful use of the roller after amputations, it is not to be compared to the danger which would attend the same lack of skill in bandaging a fractured limb.* A second use of the roller is to prevent the burrowing of pus among the muscles and other tissues

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* In the middle and upper thirds of the leg, where the muscles of the calf preponderate enormously over all the others, a bent position of the knee affords very great relief by relieving the tension of the coverings and preventing perforation of the skin by the sharp spine of the tibia. So great is the advantage derived from this position, that I always adopt it, turning the patient upon his side, whenever there appears to be the slightest tension of the integuments in front.

† Gooch. Alanson. Louis. Benj. Bell. Richerand. Astley Cooper. Hennen. John and Charles Bell. Guthrie. Sédillot and others.

‡ Liston. Teale.

§ A late writer (Symonds, Med. Times and Gazette, Sept. 8, 1860, p. 230) has doubted the efficacy of the roller in preventing muscular retraction after amputation. It may be well,

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therefore, briefly to state my own experience. 1st. I have seen a few excellent stumps of the thigh in which the roller had not been used during any part of the treatment, but in all these cases the coverings were left very long, and extensive union took place by first intention. This was especially true of amputations performed with two equal flaps, which accords with the results given by Mr. Teale, in whose operation, also, the flaps are of very ample length. 2d. I have seen a large number of cases in which union by first intention has either failed or has been confined to the integuments, and in which retraction of the soft parts has taken place to such an extent as either to tear open the newly-formed adhesions or to threaten perforation of the coverings by the pressure of the end of the bone against them. In all cases of this character, I have immediately applied the roller in the manner described, and in every instance with the happiest result. In this way I have generally succeeded in covering the bone, even in cases in which the soft parts have been very deficient, and in all cases in which the bone has not already found its way through the coverings, I have been able to relieve the tension and prevent the occurrence of this accident. In other cases, where the stump has been very painful from the same cause, although there was probably no great danger of perforation, I have at once relieved the pain and completely arrested the spasmodic twitching of the muscles, which was often present as the result of the irritation. 3d. In amputations of the leg near the ankle, the roller is of but little use, for the integuments are firmly tied to the bones by the inter-muscular and inter-tendinous fasciæ, and the retraction of the great muscles of the calf only tends to draw the tendo Achillis a little higher in its sheath. The same is undoubtedly true of amputation at or near the wrist, of the toes, fingers, &c., but in the fleshy part of the leg, and often in the fore-arm, the roller may be made to render good service. In the middle and upper part of the leg the relaxation of the soft parts may be greatly assisted by flexing the leg upon the thigh, allowing the patient to lie on his side, as was practised, for the same reason, by Mr. Pott, in fractures of the leg and thigh, and I have in this way several times prevented the perforation of the integument by the sharp angle of the tibia.

Since I have had this paper in preparation, I have requested my friend and former pupil, Dr. A. M. Wilder, Surg. U. S. Vols., to report to me such cases of amputation as might fall under his observation. I am indebted to him for notes of 14 cases, of which 9 were of the thigh, 2 of the arm, and 3 of the leg. Of the 9 amputations of the thigh, one was treated with the roller from the beginning; no protrusion of the bone took place, but the patient died from exhaustion a fortnight after the operation. Of 8 cases treated without the roller, the bone protruded in 6, and in the other 2 the coverings were tense and painful where they pressed upon the end of the bone. 5 of the 8 stumps were then dressed with the roller, with immediate relief to the bad symptoms; the 3 stumps not rolled became conical. Of 2 stumps of the arm, one, treated without the roller, became conical; the other, which was very painful and threatened perforation, was completely relieved by the roller. The 3 cases in the leg were all treated by the roller, and the muscles of the calf were also relaxed by keeping the knee bent at nearly a right angle to the thigh; they all did well.

* This is perhaps the place to mention a common and very bad use which is often made of the roller, and which is taught in many of the handbooks on minor surgery. I allude to the "capelline" or recurrent bandage, in which the roller is so managed as to cover the end of the stump like a cap. The capelline was originally employed for the purpose of moulding the end of the stump into a symmetrical form, but this slight advantage is more than neutralized by its tendency to push up the soft parts and thus denude the bone. See Thillaye, Traite des Bandages, &c., 2me Ed., Paris, 1809, p. 269.

of the stump. This accident is of pretty frequent occurrence after amputation of the thigh, owing in part to the elevated position which the stump generally assumes during the progress of the case, and still more to ill-advised attempts to secure early union by the use of sutures. In such cases the careful use of the roller is of the greatest benefit.

The soft parts may also be relaxed in some cases, by means of two or more strips of adhesive plaster applied to the sides of the stump and connected with a weight hung over the foot of the bedstead. In this method,* however, a roller should be applied to prevent the slipping of the plasters, and the result is no better than that which follows the use of the roller alone.

A kind of paraphymosis or strangulation of the end of the stump by the skin is described by several writers. It can only occur when the skin and muscles have been divided nearly at the same level, but in such a case it may give rise to serious complications. It is rarely possible to make a good stump under such circumstances, but much benefit may result from the application of a roller, so as to relax the superficial muscles and permit the skin to be drawn down beyond the other soft parts. If the strangulation has existed for some time it may be necessary to divide the skin longitudinally for an inch or two on each side of the limb, especially if it has already become adherent to the subjacent muscles.

Great retraction of the integuments, accompanied by more or less protrusion of the bone, is often observed in stumps which have been badly managed. This may often be much relieved by the application of the roller, although the stump will be always defective from the want of soft parts to protect the end of the bone. In one or two cases of this kind, I have succeeded in materially improving the result by removing the prominent apex of the cone, which projected through the coverings, and sawing off the bone at the same level. By this comparatively trivial operation nothing was removed, except about an inch of the bone and a ring of thickened and partially ossified periosteum (callus). No further retraction took place, and the skin was readily drawn together over the whole end of the stump by means of strips of plaster, used in the manner already described (page 476.) The stump was quite handsomely rounded, and its only defect was that the bone was not so well protected by projecting muscle as it would have been had the bone been cut shorter at the time of the amputation and the stump been more judiciously treated.

Rejection of Recruits.—About 350 per 1000 of those who present themselves for medical examination, as recruits in the British Army, are said to be rejected on account of physical disability.

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* Attributed by Malgaigne to Follioy, of Brest. See Manuel de Médecine Operatoire, chap. xi., on Amputations.

CANCEROUS DISEASE OF THE CEREBELLUM.

[Read at the Annual Meeting of the Vermont State Medical Society, and communicated for the Boston Medical and Surgical Journal.]

By E. A. Pond, M.D., of Rutland, Vt.

Mrs. E. N. M., aged 30 years, nine years married, had a miscarriage the second year, with considerable loss of blood. Dec. 21st, 1857, was confined at seven months; stillborn child. Her health has always been delicate. I first saw her in 1858, complaining of an acute attack—pain in right side, fever, vomiting of bilious matters, &c., which passed off in a few days. These attacks occurred at intervals during her life, and her last sickness commenced with an attack of that kind, which led to the belief of a bilious obstruction. Pain in the back was felt at her menstrual period. Disturbances of this kind gradually subsided on the treatment for ulceration of the os uteri, which, upon examination, was found to exist. She afterwards suffered from occasional similar disturbances, until about four months before her death, when the periodical flow ceased, but again appeared during her last illness. The symptoms of disease of the brain were very obscure, and their development very gradual.

During 1861 she began to complain of slight dizziness and faintness, bad feeling in her head, occasional tingling and numbness of the arm, and the bowels were obstinately constipated, with dyspeptic symptoms. In the spring of 1862, gradual loss of vision was noticed, like one seeing through a veil. Also pain in head and neck, especially at night; increasing deafness of left ear; vertigo and slight attacks of unconsciousness, the patient falling, or, as she termed it, fainting, not always unconsciousness, and lasting but a few seconds. There was no redness or appearance of inflammation about the eyes at any of these times. These alarming symptoms increased, and in May, 1862, she consulted Dr. Henry J. Bigelow, of Boston, by letter, who advised bringing her there, to have her eyes examined, which was done by Dr. H. Derby, who has kindly placed the notes of his ophthalmoscopic examination at my disposal.

"May 13th, 1862.

"Mrs. E. N. Merriam, aged 29, was brought me by Dr. Pond. He states that vision was good till health began to fail, some eight years ago. At this time she had a miscarriage, followed by uterine difficulties. Of late there have been most unequivocal signs of cerebral disturbance, such as nausea, hemicrania, deafness, dizziness, &c. Complained only of "weakness" of the eyes till a year ago, when she began to see sometimes double, sometimes halves of objects. Vision has very gradually grown worse, especially since Sepber last.

"Eyes are quite hard, the left most so. The right pupil is immovable, except in sympathy with the other; the right eye has no perception of light, either qualitative or quantitative. The left pupil reacts very slightly; perception of light only quantitative. She asserts, however, that on some days she can make out, dimly, the outlines of objects.

"The ophthalmoscope revealed both optic nerve entrances to be slightly blurred and indistinct; retinal veins very full; arteries almost thread-like. No other changes.

"In view of the undoubtedly cerebral original of the difficulty, no special treatment of the eyes was deemed necessary.

HASKET DERBY."

After her return from Boston, she seemed to gain in flesh, and also thought her eyes better. She could at one time distinguish a sign in large letters across the street, the figures of her dress, carpet, &c.; but again her health gradually failed, the pain increased, the attacks of vomiting were more severe, and her sight entirely failed.

March 26th, 1863, she was seized with a very severe attack, pain in the side, vomiting, severe pain in the head, and great stiffness of the neck, increasing until it affected the entire joints and muscles. She could not be moved without causing severe pain. The bowels were obstinately constipated, and large accumulations of hardened fæces could be felt through the abdominal parietes, which were broken down and removed with considerable difficulty by enemas and cathartics. About two weeks after this seizure, she had partial paralysis of the muscles of deglutition, and for several days it was very difficult for her to take food or to speak. She gradually improved, but could not be raised up or moved without slight convulsions. April 19th, she had quite a severe convulsion, frothing at the mouth, and unconscious for two or three hours, but again recovered her mind, and was seldom delirious, notwithstanding the agony of pain which now pierced her head, neck, ear, and eyes, and which could only be modified by anodynes and chloroform. The left eye was suffused with redness, and the conjunctiva was covered by yellowish blisters filled with serum. Copious vomiting of greenish bile then occurred every two or three days, until, finally, on the 14th of June, she sank, comatose, without a struggle, having preserved her mental faculties until within 48 hours of her death.

The hallucinations of sight were peculiar, for when she was asked, although perfectly blind, to describe what appeared to her, she said: "At first I used to see flowers and beautiful gardens, then faces, then I felt as though surrounded by a granite wall; after that an obscure object floated about, which finally settled down into a head like that of a marble statue without eyes. Then it was the back part of a head that seems to resemble mine; and lastly, and for a short time, I have seen only brains." The above is in her own words, as nearly as I can recollect.

Post mortem, 20 hours after death. Considerable emaciation; general sallow condition of the skin. Several ounces of yellowish water had oozed from the mouth. On opening the head, six or seven ounces more of yellowish serum escaped. The brain was very pale, dura mater and arachnoid normal; but on removing the cerebrum, we found in the cerebellum a tumor resting on the internal auditory foramen, and involving the auditory nerve. Chest healthy. Stomach presented appearances of thinning and softening of the mucous membrane, some parts being studded with minute red and black points. Liver rather large. The gall-bladder was thickened and fleshy, and contained three large-sized gall-stones—one of pure phosphate of lime. Bowels presented traces of old inflammations, but were otherwise normal. Uterus small, normal, except some slight induration of the neck.

The tumor of the brain was carefully examined by Dr. Benj. S. Shaw, Superintendent of the Massachusetts General Hospital, Boston. The following is his report:—"The tumor from the brain measured about an inch and a half in diameter, was nearly globular in form, enclosed a nerve of considerable size, and was surrounded by a thin membrane. There were portions of the growth which resembled encephaloid cancer, and also spots of extravasated blood. Under the microscope, it was found to be cancer, composed of cells containing large nuclei and nucleoli, with very little fibrous structure."

AN ACCOUNT OF AN ATTEMPT TO RESTORE TO ITS NATURAL APPEARANCE A PUTREFIED DEAD BODY, IN ORDER TO PROVE ITS IDENTITY.

By Benjamin Ward Richardson, M.A., M.D., Senior Physician to the Royal Infirmary for Diseases of the Chest.

On Saturday, the 9th instant, I conducted an inquiry to ascertain if a human body that had undergone putrefactive change to such a degree that it was unrecognizable, could be so far restored to the appearance of life as to be sworn upon in respect to its identity.

As the inquiry in question, from the circumstances by which it was surrounded, has created great public interest, as it opens a new line of research in regard to a medico-legal question of a very important nature, and as certain imperfect impressions are afloat concerning it, I take the opportunity of laying the exact scientific facts before the profession at the earliest possible moment.

To make every point clear to provincial and foreign brethren, let me state the simple narrative of the facts in the first place. Some weeks ago a woman named Emma Jackson was murdered in St. Giles's by having her throat cut in a house of ill-fame, to which she had retired with a man who had been seen by at least three persons, and whose appearance was clearly defined by them. This man, by some strange and almost inexplicable method, made his escape from the house without being seen to depart, and has not since been detected. Several persons have, however, been suspected, and one or two have been temporarily detained, but on examination they have been discharged.

On Monday, May 4th, a man was dragged dead from the Thames, who in many respects seemed to answer to the description given of the assumed murderer. On the following Wednesday, Mr. Humphreys, the coroner for East Middlesex, held an inquest on the body of this man, but decomposition had advanced so far that none of the witnesses could arrive at any conclusion whatever respecting the body; it was, in fact, utterly unrecognizable. This statement having been made in the public papers on Thursday morning, I formed an opinion, derived from some researches on dead tissues, that it might be possible to alter the appearance of the body so much as to enable the witnesses to speak as to its identity. In the afternoon of Thursday last I met, accidentally, Dr. Lankester, who had held the inquest over the body of Emma Jackson, and I explained to him my views. He urged me very strongly to communicate with Mr. Humphreys. I did so, and through the kind aid of Dr. Edmunds got an interview with Mr. Humphreys on Friday night. Having given him an outline of the plan I proposed to follow, he deputed me to carry out the attempt, and requested Dr. Edmunds to be present and take part in conducting the suggested process. We were to act at once, as the adjourned inquest was to be held on Saturday.

At half-past ten on Saturday we were taken to the dead man, who was lying in a shell in the dead-house in Darby street, Tower-hill. He was dressed as he was when taken out of the water. His body generally, with the exception of the hands, was deeply discolored, and the face was so changed that it was quite impossible to form any opinion respecting either its color or feature; it was as black as the face of the darkest negro, and had it not been white when he was taken out of the water, I should say that the man would have been returned as a negro. The lips were enormously distended, and the nose was scarcely visible; the cheeks and eyelids were also greatly distended. In fact, the putrefactive changes were so advanced that it required some little determination to proceed. Following, nevertheless, the course I had marked out, we immersed the body in water, and then added to the water twenty pounds of common salt; we also added gradually, in the course of the operation, one pint of common hydrochloric acid; and the body was allowed to remain under this solution for two hours. The object of this part of the process was to reduce the swelling of the features by exosmosis. The shell, being water tight, answered as a bath.

Meanwhile we charged a pail of water with fresh chlorine, and then, lifting the face out of the water in the shell, treated it with the chlorine water. I also directed a stream of chlorine gas for some time upon the face. The object of this part of the process was to restore the white color.

A little before one o'clock, both of the intentions we had in view were realized to a considerable degree. The tumefaction was relieved; and the face, from the deepest black, had become of the cast of light clay, common wood-ash, or the darker sort of straw paper. When the chlorine in vapor was passing over the face, the skin approached to white, but so soon as it was withdrawn the change to clay-like hue returned. So much was now accomplished that we were able to form a fair estimate of the man. We found that he was evidently a young man, not more probably than 21 years of age; he had a short, feeble moustache; his lower lip had a short, soft beard that had not been shaven, and his whiskers corresponded; his face was naturally round and full, and indeed his body generally was well nourished.

At one o'clock we left, and returned at two. We had arranged that a stream of chlorine should continue to play over the face in our absence, but, as we had no one to leave in charge, the gas became exhausted, and the face was a little darker when we returned.

Pursuing still the course I had prearranged, we opened the body. We found the viscera but little decomposed, and natural; the heart was empty and flaccid; the lungs free from congestion. We fixed a large tube in the aorta, through the left ventricle; and Dr. Edmunds tied the aorta in the thorax, so as to prevent any passage of fluid to the lower part of the body, and to the abdominal viscera. Then we injected a solution, consisting of chlorine water, chloride of zinc, and a little sesquichloride of iron. The object in this instance was to impregnate the tissues from within with the decolorizing agent, and to reduce the tumefaction. On forcing the injection, we found that great escape took place through the vessels that had been divided in opening the thorax. We therefore withdrew the tube from the aorta, and as the face was the part chiefly requiring attention, Dr. Edmunds laid bare the common carotid on the right side, and a small nozzle from the syringe was introduced into that vessel and tied. It must be understood that much care was required in forcing the injection through structures so decomposed and yielding, and that we dare not push this part of the operation too far. Had we used much force we should have produced extensive infiltration through the broken capillaries, and have destroyed the facial structures altogether. So soon, therefore, as the face was subjected to slight tension, the injection process was stopped. The time had now approached for the sitting of the jury at half-past 4, P.M. We allowed all the water to drain away, drenched the body with pure water, and left it with the face covered with a piece of thick cloth, on which was poured a little hydrochloric acid and methylated alcohol. The face at this time was of a clayey color, and a little more full than natural; and although we felt that we had not brought it up to its perfect natural appearance, we believed that it might be recognizable by any one who had seen it during life, and especially that it was a face which a witness could swear was not that of any particular person whom he remembered, if there were not strong natural resemblances between the two.

The result indicated that we had effected even more than we had anticipated, and that, if we had not succeeded to the perfection we could have wished, we had fulfilled the practical part of our mission and all that was demanded of us; for the three witnesses who were there either to confirm or disprove the hypothesis that the man before them was the man last seen with the murdered woman, each and all swore without hesitation, on their second view of the unknown man, that he was *not* the assumed murderer.

Margaret Curley, of 4, George-street, St. Giles's, swore that she had examined the deceased since the operation had been performed, but that she did not recognize him as a person she had seen before, nor as the person suspected; Charles Ansley, of 20, Peter street, bore the same testimony; and H. Stoke, the shoe-man, swore definitely that, from his inspection of the deceased since the operation, he was sure that he was not the man whom he had seen with Emma Jackson. The Coroner, in summing up, observed that the experiments made having enabled the witnesses to swear that the deceased man was not the man accused of the murder, they had fulfilled their purpose, and the jury returned a verdict in accordance with the evidence.

Reflections and Suggestions.—The fact that in a case so extreme as the one named, science has come in to render essential aid to justice, affords, I hope, subject for thought and renewed effort in the same direction. I am far from considering that we ought to stop where we have thus begun. I look upon this case, in fact, as a mere first and experimental trial, which, followed up, will lead to great perfection in one department of medical jurisprudence; and I feel, consequently, that I cannot conclude this paper better than by pointing out what improvements in the process have been suggested to me by the experience detailed above.

1. In respect to time. On another occasion I would ask to be allowed at least twenty-four hours for the performance of the process. The period of six hours was insufficient for the full development of the required changes.

2. I should proceed by stripping the subject of all apparel.

3. After this the subject should be placed in a water-tight shell, in which a large tap for escape of water should be inserted, and the body should be thoroughly washed with water.

4. After the washing, the body should be covered with water, and held beneath it by a few cross bars of wood. Then the lid of the shell should be temporarily but effectually closed down, and two openings should be made into the lid; through one of these open-

ings the free end of a tube, connected with a chlorine flask, should be passed beneath the surface of the water; while from the other opening should come another tube, the free end of which should turn over into a glass globe of water. These preliminaries arranged, fresh chlorine should be driven in until the water within is saturated by it, the fact of saturation being determined by the passage of chlorine through the escape-tube. When the water around the body should thus become charged with chlorine, the openings in the lid of the shell should be closed, and the whole should be left undisturbed for twelve hours.

5. On opening the lid after the interval of time named, common salt should be added to the water, until the hydrometer should stand several degrees above the specific gravity of the blood; the specific gravity of 1100 would answer for the solution. In this solution the body should remain immersed for twelve hours; the water should then be drawn off and the body examined.

[If there were no deep decomposition and discoloration, the body, I believe, would now be ready for identification; but if the putrefaction were very deep-seated, it would be requisite to proceed further.]

6. If necessary, open the trunk of the body at this point, and make any post-mortem observations that may be required. The head should not be opened at this stage.

7. After the post-mortem examination, in order to restore a more natural expression to the face, solutions should be injected into the external carotid of each side. The form of solutions I should suggest in another case would be—

(a) Water saturated with chlorine, and charged, in addition, with tincture of the sesquichloride of iron in the proportion of two fluid drachms to the pint.

(b) Common fresh milk saturated with common salt.

Of injection *a*, I would recommend that from two to three ounces should be slowly injected on each side, to be followed, without removing the nozzle of the syringe from the vessel, by so much of solution *b* as should cause the slightest possible tension on the tissues of the face.

Lastly, if it were requisite to retain the body for some time, it would be advisable to cover it with wood spirit, containing one drachm to the gallon of the tincture of the sesquichloride of iron, and to exclude it from the air.

In offering these suggestions, I beg that they may be accepted as open to revision; the principle recognized, the details are certain, under experiment, to be simplified and improved.

In conclusion, I have to offer my warmest thanks to Dr. Edmunds for the energetic, friendly, and able part which he took in the very interesting inquiry to which I have called attention. His exertions contributed in a most important manner to the results obtained.—*London Lancet*, May 16, 1863.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JULY 16, 1863.

MILITARY HYGIENE.*—No better proof of the fitness of the present Surgeon-General of the United States for the high and responsible office which he fills could be asked than the volume before us. It will take its place at once among the standard works on the subject. Any one conversant with the philosophical and inquiring mind of the author will readily understand that he is to be found among the most influential class of the profession at the present day, who are disposed to question pretty closely the claims of drugs to virtues which too often prove to be merely traditional, while they are ever on the alert to detect those causes which produce and perpetuate disease, and depend more upon an accurate knowledge of the laws of nature in treating it than upon any specific medication. His recent exclusion of the two powerful agents calomel and tartarized antimony from the medical supply table of the United States Army, at once shows his confidence in the power of such methods of treatment, and his indifference to the criticism of the routinists. He is not, however, insensible of the value of proper medication, but is "sure that the curative influences of hygienic measures have been too much neglected, and that drugs, the traditional actions of which have been positively disproved by physiological and chemical researches, as well as by the soundest deductions from pathology, are too frequently administered through a strict adherence to the routine which hinders the development of medical science, and cramps the powers of those who labor for its advancement." One object, therefore, which he had in view, "was to lay before the profession and those who contemplate entering it, some of the principal facts which bear upon the hygienic condition of man in causing, preventing, and curing disease."

With such a motive, stimulated by the patriotic desire to do all in his power for the welfare of an army engaged in the noblest of causes and composed of materials such as the world has never before seen, in the midst of the overwhelming labors of his office, the Surgeon-General has taken from the hours which otherwise would have been given to repose the time necessary to produce this valuable contribution to sanitary science. Surely the nation is largely his debtor for the sacrifice.

The work is divided into sections, each of which is subdivided into chapters. The first section treats of the examination of recruits, and sets the seal of authority to this important matter, about which there has been heretofore so much indecision and remissness among our examining officers, and will be of great value hereafter in settling all doubtful questions. In this department of his subject he discusses very fully the topics of age and physical development as bearing on the question of fitness for military service, introducing much valuable information from high European authorities.

Section second treats of the agents inherent in the organism which affect the hygienic condition of men. Under this head he discusses, in successive chapters, race, temperaments, idiosyncrasy, habits, &c., the numerous influences growing out of the individual organization, always keeping in mind the special effect which such influences have in fitting or unfitting a man for a military life. The author then goes on, in section third, to speak of the external agents which influence man's health, such as the atmosphere and its various conditions, light, electricity, water, soil, climate, &c. &c., through twenty-nine chapters of most valuable and interesting matter.

Of these chapters, six, and they are among the most valuable in the book, are devoted to the subject of hospitals, in all the details of their construction and arrangement, with special reference to the requirements of the military service. We take it for granted that the large barrack hospitals, of which so many have been constructed by the United States Government during the past year, may be regarded as answering more completely the objects of perfect fitness and economy than any other plan which has heretofore been devised. In his preliminary treatment of this subject, the Surgeon-General gives us much interesting information concerning some of the principal hospitals in Europe, illustrating his remarks with numerous plans of their construction. Of the public hospitals in the United States, he makes particular mention of the new City Hospital of Boston and the Episcopal Hospital of Philadelphia, honoring each with quite an extended notice, and introducing a number of designs showing their general structure. Of these, he says that they are "in some respects superior to any which have been constructed in any part of the world, and so far as can be perceived fulfil all the requirements of sanitary science." He compliments the Boston hospital specially for the architectural beauty of its design, as well as for its admirable arrangements. He perpetuates, in a handsome wood-cut, the original façade as designed by Dr. Clark, and thus gives permanency of record to what we in Boston must now, alas! merely look upon as an institution of great usefulness and beauty, which we *might* have had, but for an "*if*." That "*if*" is still a mystery. How it happened that the original design for our hospital, so well conceived, so happily maturing, apparently, should appear at its birth in the shape and arrangement which it now bears—diminishing its utility and beauty so very seriously—is one of the unwritten secrets. Somebody else may reap the benefit of the original plan, however, through the Surgeon-General's commendation of it; it is lost to us here.

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* A Treatise on Hygiene, with special reference to the Military Service. By WILLIAM A. HAMMOND, M.D., Surgeon-General U. S. Army, &c. &c. Philadelphia: J. B. Lippincott & Co. Pp. 604.

The Surgeon-General gives a very full account of the army barrack-hospitals, in all their details, with ground plans of many of them, and other illustrations of the various contrivances for ventilation, &c., so that this is a very valuable part of the work, and a most useful contribution to the literature of this subject.

Following the hospitals, come the subjects of barracks, camps, food, clothing, &c., all of them treated in a sensible and practical manner. These, want of space does not allow us to follow in detail. We will merely remark that our author, in speaking of stimulants, agrees with Böcker in his conclusion that alcohol is food. He comes to this opinion from experiments carefully conducted upon himself. In the first series he took food enough to keep the body at the ordinary standard of weight, and in addition four drachms of alcohol at each meal, diluted with water. Continuing this for five days, there was found to be a decided increase of weight, although the general health was somewhat disturbed. In the second, on a diet which was found to give a regular decrease of weight from day to day, the use of alcohol not only counteracted this, but caused an appreciable increase of weight. In the third series more food was taken than was needed, and the stimulant produced marked constitutional disturbance, although the weight regularly increased. From these results he concludes that alcohol must be regarded as food. It is to be noticed, however, that, as he states, in these experiments the amount of carbonic acid and aqueous vapor exhaled from the lungs underwent diminution, as did also the quantity of urea excreted. The exact difference in the amount of these excretions before and under the use of alcohol is not given; and we would submit that this should be measured as accurately as possible before the question can be considered as settled. It may be that in these instances the increase of weight was after all only due to the retention of what would otherwise have been eliminated. In the second experiment the operation of the stimulant was most agreeable. To quote his own words:—"Digestion was well performed, the mind was clear and active, and there was no excitement of the nervous or circulatory systems; in fact, all the functions of the body appeared to act with energy and efficiency. It is in these cases, therefore, that the proper use of alcohol is to be commended; that is, when the quantity of food is not such as to admit of the due performance of such physical or mental labor as may be necessary, or, what amounts to the same thing, when the digestive and assimilative functions are not so efficiently performed as to cause the digestion and appropriation of a sufficient quantity of the food ingested to meet the requirements of the system." Here, again, we would suggest, that the experiment goes quite as far to prove that alcohol is a *stimulant* merely, as that it is food.

We cannot close our notice of this interesting work without mentioning a fact stated in the preface, of peculiar importance at the present time in its bearing on the fitness of the negro race for military service. It is the comparative immunity of this race from the power of malarial disease. "From official reports which have recently come to hand, it appears that while the white troops are affected to the extent of 10.80 per cent. with diseases of malarious origin, the negro troops serving in the same army show only 0.80 of such diseases." A most remarkable exemption, clearly pointing to a most useful employment of such troops in our Southern and Western Service.

In conclusion, we must express our admiration of the beautiful manner in which this book has been published. Type of the largest and most luxurious character, fair paper in these days of dingy pages, and numerous and excellent wood-cuts, combine to make its exterior as attractive to the eye of taste as its valuable and interesting contents are to the understanding.

VERMONT MEDICAL SOCIETY.—The semi-annual meeting of this Society was held in Woodstock on the 24th ult.—Dr. J. N. Stiles, President. The following new members were admitted:—Drs. S. A. Skinner, Bristol; B. Schermerhorn, Woodstock; R. H. Phelps, Barnard; John Harding, Hartland; O. F. Fassett, E. Berkshire; Hiram Crandall, Stockbridge; L. A. Richmond, Hartland; G. S. Goodrich, W. Berkshire; Jas. P. Osborne, Felchville; D. W. Hazelton, Cavendish; Ripley Clarke, Windsor. The subjects of diphtheria, typhoid fever and scarlatina were discussed. The following gentlemen, one from each County of the State, were appointed to report to each meeting of the Society the history of disease as manifested in their respective counties, embracing any epidemics that may have occurred:—Drs. Fassett, Rodiman, Simons, Upham, Bullard, Cushman, Blanchard, Bradford, Jos. Morgan, Hide, Carpenter, Hopkins, E. S. N. Morgan, Pond. At the P. M. session, interesting cases were reported by Drs. Blanchard, Rodiman, Fassett, and Brigham; one by Dr. McCollom, in which the iron portion of a penholder was coughed up after having been in the air-passages 11 months; and one by Dr. Fairchild, of hepatic abscess, with post-mortem discovery of communication from colon with abdominal cavity, and absence of left kidney and also of right testicle. Dr. Pond also presented two written cases. On recommendation of the Executive Committee, the following subjects were presented for discussion at the next annual meeting, and the President subsequently appointed the member named with each, to prepare a paper upon the same:—1. Chronic Pleurisy, Dr. Richmond; 2. Remedial Agents, Dr. Fassett; 3. Ulceration of the Mouth and Neck of the Uterus, Dr. Hazen; 4. Pneumonia, Dr. Brown.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JULY 11th, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - - -	40	32	72
Ave. mortality of corresponding weeks for ten years, 1853—1863,	39.6	36.9	76.5
Average corrected to increased population - - - -	00	00	84.30
Death of persons above 90 - - - - - - - -	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
9	1	2		0	4	4	1

DIED,—In this city, 10th inst., Dr. John Stevens, 74.

DEATHS IN BOSTON for the week ending Saturday noon, July 11th, 72. Males, 40—Females, 32.—Abscess, 1—accident, 3—apoplexy, 1—disease of the bowels, 3—inflammation of the bowels, 1—disease of the brain, 2—bronchitis, 1—cholera infantum, 4—consumption, 9—convulsions, 2—croup, 1—cystitis, 1—debility, 1—diphtheria, 1—dropsy, 2—dropsy of the brain, 4—dysentery, 4—scarlet fever, 2—typhoid fever, 4—disease of the heart, 2—infantile disease, 1—disease of the liver, 1—inflammation of the lungs, 3—marasmus, 3—old age, 2—paralysis, 1—peritonitis, 1—premature birth, 2—puerperal disease, 1—sore throat, 1—suffocated, 1—unknown, 5—whooping cough, 1.

Under 5 years of age, 30—between 5 and 20 years, 8—between 20 and 40 years, 16—between 40 and 60 years, 11—above 60 years, 7. Born in the United States, 54—Ireland, 15—other places, 3.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

Vol. Lxviii. Thursday, July 23, 1863. No. 25.

CASE OF HÆMOPTYSIS, WITH PECULIAR PHYSICAL SIGNS.

[Read before the Boston Society for Medical Improvement, and communicated for the Boston Medical and Surgical Journal.]

By S. L. Abbot, M.D., Physician to Out-patients at the Massachusetts General Hospital.

Mr. C., a young man, 25 years of age, a tailor by trade, of previously fair health, was suddenly seized with a violent attack of hæmorrhage from the mouth, accompanied by retching, and without antecedent cough. Two similar attacks followed within the space of a week. Another physician whom he had consulted regarded the case as one of hæmatemesis, and there were several circumstances about it calculated to give this impression. It was found, as has been observed, that the bleeding was accompanied by severe retching, and on pressure at the epigastrium a very sensitive spot was detected, about four inches below the ensiform cartilage, over which croton oil had been applied by the advice of the gentleman previously consulted.

On making examination of the case, it was found that the patient had not been subject to cough, but had been troubled with a catarrhal affection of the throat, with over-secretion from the follicles of the tonsils. In clearing the throat in the morning from the collected secretion of the night, it was quite a common occurrence with this patient, as so often happens in such cases, for the attempt to excite nausea and retching. His throat belonged to that sensitive class in which the slightest touch produces this effect. On questioning him carefully, it appeared that the sudden flow of blood into the mouth was the first phenomenon, and that its presence there and the attempt to clear the throat as it rapidly welled up, brought on the retching. There was no vomiting of food. It thus became evident that the effort at vomiting was secondary to the bleeding. The same effort would seem to explain the soreness at the epigastrium, which still continued and which seemed to be muscular. The patient was not aware of the existence of the sensitive spot until it was forcibly pressed upon, and had had no symptoms at any time previous referable to the stomach. Neither was there any evidence of blood in the alvine evacuations, as there probably would have been in case of such profuse hæmorrhage, if from the stomach.

The pulmonary physical signs in this case were peculiarly interesting. There was moderate dulness on percussion in the upper half of the left front chest, with rather coarse respiration, but no crepitus on inspiration, or excited by cough; but during the diastole of the heart, while the lungs were in the act of expiration, there was a peculiar crepitus, extending from a point over the aortic valves in an oblique line down nearly to the left nipple, synchronous with the diastole, and thus heard several times during a single act of expiration. The sound was very peculiar, and at once suggested the compression of a portion of lung, from which the air did not easily escape by the natural elasticity of the part, between the heart and the walls of the chest. It suggested to the ear very much what is felt to the touch when a portion of crepitating dead lung is pressed between the fingers. This sign was unmistakable, and was observed constantly, gradually diminishing as the condition of the patient improved, and as the cough grew less, until it was limited to a spot of about an inch in diameter over the base of the heart. It was worthy of note that this sign was perceptibly less on the day after a slight return of bleeding, which seemed to have relieved the engorged tissue. I could not doubt that it was produced by compression by the heart, while filling with blood, of the overlying edge of the upper lobe of the left lung, which was in a state of congestion. In confirmation of this theory it was remarked, that when the lung was fully inflated and the respiration was suspended for a few moments, the sound ceased; the pressure produced by the heart's diastole not being strong enough to squeeze out, so to speak, the enclosed air, as it did when the act of breathing was uninterrupted.

Another sign in this case was one which has been mentioned of late by writers as an early symptom of phthisis,* or solidification of the lungs by tubercles, namely, a systolic souffle heard over the condensed portion of tissue, attributed to more or less compression of the arch of the aorta, or the large arteries given off from it, by the solidified lung. In these cases the sounds of the heart at the apex and at the base are heard perfectly unmodified; but, on following up the vessels towards the summit of the lung, the souffle is distinctly heard in the situation of the dulness on percussion. I have heard this sound recently in two cases of persistent dry cough, with rational signs of commencing phthisis, but without crepitus, and am inclined to attach much value to it as an early warning of the disease. In the present case this sign was very marked in the upper front third of the left lung, and clearly pointed to a partially condensed condition of that lung. As the case progressed and the condition of the patient improved, this sign also gradually diminished, although it has not entirely disappeared. I regard it as an unequivocal evidence of more or less solidification. Thus, in this case, there have been two signs of pulmonary condensation—one caused by the compression of lung tissue by the organs of circulation, the other by compression of the organs of circulation by the lung tissue.

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* See article on page 175, Vol. Lxvii., of this JOURNAL, entitled "On Arterial Murmurs in Incipient Phthisis." By W. S. Kirkes, M.D., Assistant Physician to, and Lecturer on Medicine at St. Bartholomew's Hospital.

CASE OF DIPHTHERIA, WITH TRACHEOTOMY. RECOVERY.

By E. A. Pond, M.D., Rutland, Vt.

[Communicated for the Boston Medical and Surgical Journal.]

Wednesday, May 27th, 1863, was called, in consultation, to a case of diphtheria. The case presented the usual, ordinary symptoms. The tonsils and posterior portion of the fauces were covered with yellowish-white membrane; the anterior and upper portions of the throat intensely red. A mixture of chlorate of potassa, tincture of muriate of iron and muriatic acid was at once applied, and also administered internally. The voice was nearly gone, and the cough and breathing croupy.

28th, 29th, 30th.—The upper part of the throat appeared to improve, but there was a gradual increase of the croupal symptoms, and from the great obstruction to breathing, shown by the livid appearance, it was evident that the child was dying. There was considerable enlargement of the glands about the neck, a part of which had existed since an attack of scarlet fever, about a year ago. The glandular enlargement finally suppurated and discharged through the mouth. Saturday morning, seeing the child was sinking, I performed the operation of tracheotomy, it being evident that life could not continue much longer, so urgent were the symptoms.

The relief was very marked, and half an hour after the child's countenance assumed quite a rosy appearance, and there was free expectoration through the tube of membranous shreds and mucus. Before the afternoon expired, we felt very hopeful of success. A tonic course of quinine, iron and wine was liberally and regularly administered, with a generous diet. During the night the child slept somewhat. On the morning of the 31st he seemed quite comfortable, breathing entirely through the tube. The throat rapidly improved until the 5th of June, when bloody expectoration and bronchial irritation increased, and an erysipelatous inflammation showed itself and spread nearly to the point of the shoulder and down on the chest.

June 6th.—Fearing the extending irritation, the canula was removed. The parts were moulded to the canula, and a perfect opening was left through which the child breathed and expectorated freely. On covering the opening, symptoms of suffocation were induced; the canula was not replaced, however, to avoid all possible bronchial irritation. Great care was exercised to keep the opening clear of all obstructions until the natural breathing was gradually restored.

The canula was large and double, and kept constantly clean. Anodynes were administered occasionally, to allay restlessness. The case improved, without any serious disturbance, and on the fourteenth day after the operation the patient could speak aloud. On the 17th, the opening had entirely closed, and the patient was constantly gaining in strength and flesh. At present, the 24th, he has entirely recovered.

ON THE DIAGNOSTIC VALUE OF AN ACCENTUATED CARDIAC SECOND SOUND.

By J. Warburton Begbie, M.D., Physician to the Royal Infirmary.

It is now universally admitted that the second sound of the heart is produced during the act of closure of the semilunar valves in the orifices of the aorta and pulmonary artery. The sudden tension of the membranous structure of which these valves are composed is a sufficient, possibly the *only*, cause of the sound. It is, however, probable that, as generally held, the recoil of the blood against the valves contributes to its production.

Careful clinical observation has materially aided the direct experiments which, at a former period, were made regarding the heart's sounds. As respects the second sound, it may indeed be concluded that, by the former means of research, much left unfulfilled by the latter has been supplied. For example, I may refer to one or two particulars of importance, which have a special bearing on the subject of this paper. When the second sound is entirely replaced over the base of the heart by a murmur, it is not audible over the ventricles, and is not to be detected at the apex of the organ. In other words, when the murmur of aortic regurgitation is so loud as to drown all normal second sound, preventing, by its very loudness, the recognition of the pulmonary second sound over the pulmonary valves, or in their immediate neighborhood, where the second sound originating there is most readily heard, it cannot be detected even in small part over any other portion of the heart. Here, however, there are some points worthy of special observation; they concern what may be called exceptional cases of aortic insufficiency. A diastolic murmur may largely obscure, but not obliterate, the second sound over the aortic valves, a portion of it remains; and in such cases, the pulmonary second sound being either readily appreciable or at least audible, the murmur diminishing in loudness as the stethoscope is placed over the ventricles, the normal second sound, pulmonary in origin, or the portion of aortic second sound which remains, is with greater readiness discovered there, or even at the left apex, than at the base. In endeavoring to account for this circumstance, it must be held in remembrance that the murmur of aortic regurgitation is not conducted with anything like the same distinctness over the ventricles as it is down the course of the sternum to the very limit, in some instances, of the ensiform cartilage itself. I have found not unfrequently that the second sound, greatly obscured by murmur at the base, and having precisely the same character at the end of the sternum, has been partially unclouded at the left apex, and over the ventricles a little less so. In such instances, it has not been difficult to determine that the more ready recognition of the sound in the latter situations has been due to the loss in distinctness sustained by the murmur.

Dr. Walshe has noticed "a distinct sound at the left apex in more than one case, while at the aortic base the ordinary regurgitant murmur alone existed."* So also in cases in which the second sound at the base is only feebly heard—no murmur existing—there may be, if not a loud, at all events a more readily recognized second sound near or at the apex. To such instances Skoda has directed attention, and they have likewise been fully considered by Dr. Walshe. In explanation of their occurrence it may be, as Skoda has suggested, and Dr. Walshe is disposed to allow, that some of the phenomena occurring during the diastolic action of the ventricles, which are properly, or rather naturally, soundless, become attended by sound—in other words, produce a second sound of their own; or it is equally conceivable—although perhaps not fully established—that certain diseased states in existence may determine a sound bearing a resemblance, more or less exact, to the normal diastolic sound of the heart.

These few observations I have made by way of preface to the statement of great practical value which I now wish to consider—That an accentuated condition of the heart's second sound is heard in connection with one or other of two conditions of disease—aneurism of the aorta, or dilatation of the aorta. It is hardly necessary to say, that no account is taken here of the by no means uncommon phenomenon of an accentuated pulmonary second sound. All careful auscultators know of how much value that phenomenon is in relation to the condition of mitral valve constriction. In describing the heart's second sound as accentuated in the instances of aortic aneurism and aortic dilatation upon which the present observations are based, it is perhaps necessary to explain that the expressions, intensified, or greatly pronounced, would equally well indicate the character of the sound which has been found to exist. When occurring under the circumstances referred to, the accentuation of the second sound is always well marked. I have frequently observed that early auscultators have, unaided, noticed the peculiarity, while very rarely indeed has there been any difficulty attending its recognition by such, when their attention has been called to the subject. In a case of aortic aneurism under my care last summer, there existed so accentuated a second sound over the base of the heart as to arrest the notice of all who examined the patient by auscultation. Several students, merely tyros in the art, readily recognized the *booming* character of the sound.

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* Diseases of the Heart, 3d edition, page 65.

When the accentuated second sound occurs in connection with aortic aneurism or aortic dilatation, it may be presumed that the semilunar valves are competent. Their insufficiency and the occurrence of an accentuated second sound are inconsistent; if the former lesion be in existence, a diastolic murmur is the necessary result. The influence of valvular disease in the production of murmurs in cases of aortic aneurism is a point of the greatest importance for consideration. There may be, of course, associated mitral valve disease, or tricuspid disease, and, if so, murmurs may be thus originated; but such association is to be regarded rather in the light of an accidental coincidence, and not by any means of the same importance as the occurrence of disease of the aortic valves. Judging from cases of aneurism which have come under my own observation in hospital, I conclude that it is very common to find aortic valve insufficiency in connection with aortic aneurism; while in such cases the diastolic murmur, usually a very loud or at least very distinct one, so characteristic of the former lesion, is the most prominent auscultatory phenomenon. The cases now referred to are very evidently not cases of valvular disease in the first instance, and subsequently of aneurism; in none has there been any foregoing attack of rheumatism, in none any distinct rheumatic history. Neither are they examples of a mere accidental association. The relation of the valvular imperfection to the aneurism is, I believe, of the greatest interest and importance, and in all, its occurrence has been subsequent to the disease of the vessel. If an aortic aneurism attain to any considerable dimensions, and affect the ascending portion of the arch, the aortic valves are rendered incompetent; and being so, we shall find the auscultatory phenomenon connected with the latter lesion in existence, and likewise the other physical signs which afford such evidence, especially the well-known peculiarities in the pulses, as pointed out by Dr. Corrigan and Dr. Henderson. I never remember to have seen an instance of aneurism of the aortic arch within the pericardium of any considerable size unattended by diastolic murmur—the diastolic murmur of aortic valve insufficiency. On the other hand, the prominent physical signs of aortic insufficiency have led me—and no doubt the same error has been committed by others—to overlook the existence of aneurism altogether. Dr. Haldane has in his possession a preparation of a large aortic aneurism, removed from a patient who had been under my own observation, as well as at different times under the care of three hospital physicians. In this case the signs of insufficiency of the semilunar valves were of unusual distinctness, and so, during the patient's life, the existence of that lesion was recognized, while the aneurism escaped detection till after death. The fatal event occurred suddenly, not from rupture of the aneurism, but after the mode in which a very sudden termination not unfrequently takes place in cases of aortic insufficiency. With these facts before us, how necessary is it to make a careful use of the other means of diagnosis, in addition to auscultation, which we possess.

There is no diseased condition within the chest which gives rise to so many and different auscultatory signs as aneurism. I have no intention at present of making any detailed reference to these. My remarks will be limited now to one peculiarity—the *accentuated* second sound. Here I purposely avoid making any mention of the systolic cardiac sound. Of course, in all cases, it is of importance to determine its true state, whether pure, or itself accentuated, or attended by murmur: any of these it may be, while the accentuated character of the second sound prevails. Now, as the result of careful observation and continued attention, I have found that, excluding the accentuated pulmonary second sound, and the intensified aortic second sound in some cases of hypertrophy and dilatation of the left ventricle, the accentuated second sound in the aorta is an indication of aortic aneurism, or of dilatation of the aorta associated with atheromatous degeneration. If it be the former, the aneurism probably does not arise within the pericardium, and probably does not affect the ascending portion of the arch, but has, most likely, its seat in the transverse portion; it may, however, arise at an earlier part of the aorta, as was found in the following case:—

Aneurism of the Aorta, pointing externally, bursting through the Lung into the Left Pleura.—S. M., æt. 36, under my care in the Infirmary, Ward V., during August and September, 1862. Between the second and third left ribs, near their cartilages, a pulsating tumor was detected on the patient's admission. On aucultation a soft bruit was audible over the tumor; and at the base of the heart, as well as over the upper bone of sternum, a very loud ringing second sound. The latter phenomenon never varied during the patient's six weeks' residence in the hospital. He died suddenly, after expectorating a little blood. On examination of the body after death, serous fluid and coagulated blood, to the amount of more than half a gallon, were found in the cavity of the left pleura; the heart was pushed downwards and backwards; it weighed fourteen ounces. *The valves were perfectly healthy.* An aneurism was found commencing abruptly an inch and a half above the semilunar valves—the whole vessel suddenly dilating to a point immediately beyond the origin of the left carotid, where the dilatation as suddenly ceased. The pouch so formed was six inches in length; it passed behind and was applied to the back of the manubrium sterni, and made its appearance externally between the second and third left ribs. The left extremity of the sac was intimately united to the left lung, the edge of which had become thinned by pressure, and the pleura having then given way, allowed the escape of the aneurismal contents into the pleural sac.*

In the foregoing case, the peculiarity of the second sound was of comparatively little value in leading to the recognition of the aneurism, other and still more distinctive signs, especially the visible pulsating tumor, of that condition being in existence; but the accentuated sound led to the diagnosis of the competency of the semilunar valves, which post-mortem examination confirmed. In the following case the accentuated second sound was the earliest noted reliable sign of aortic aneurism.

W. M'A., æt. 35, a hawker, was first seen by me in March, 1862, complaining of slight chest symptoms, particularly cough and expectoration of a little phlegm. Had not been a sober man.

Condition on first examination.—Has a slight bronchitic affection. Heart's second sound markedly accentuated over the aortic valves. No other auscultatory phenomenon connected with heart or great vessels.

I had frequent opportunities of seeing and examining this man up to November 6th, when he entered the Infirmary, becoming a patient in Ward IV. During this time his general health had failed considerably; he had become thinner, feebler, less able for his occupation, though still moving about and doing something as a traveller.

On 6th November, the following notes of his condition were made. Has been suffering from dyspnœa, which has seized him on a few occasions suddenly, and without any previous effort or exertion having been made. Cough is somewhat clanging in character. Has some pain and peculiar sense of weight in region of sternum. Over the left portion of manubrium there is visible pulsation—the latter readily distinguished on pulsation. Left radial pulse is feebler than right. Murmur of soft blowing character accompanies first sound over the seat of pulsation, and is heard less distinctly over the base of heart. The second sound at base is of a loud *booming* character. Respiratory sounds in upper part of left lung, feeble. Posteriorly there is a little bronchial stridor.

This man, so far as I know, survives; he left the Infirmary about eight weeks since. With such signs as those detailed, the existence of aneurism becomes unquestionable; they have become gradually developed in succession to the accentuated second sound, the earliest noticed of all.

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* The post-mortem examination was performed by Dr. Haldane, at that time Pathologist to the Royal Infirmary, and the account given above has been abbreviated from his record of dissections.

Of this kind I might furnish other examples: several are known to me, and the opportunity has occurred for directing the attention of students to these, in the ordinary course of clinical instruction.

I have further to remark, that a similar condition of the second cardiac sound may be caused by dilatation of the aorta, associated with more or less of atheromatous degeneration. To distinguish between the two—in other words, to know when the accentuated second sound is due to aneurism and when to dilatation of the aorta, is not always easy. Reliance is chiefly to be placed on the associated physical signs in the former case, more particularly prominence, pulsation, extended percussion dulness, and the signs of internal pressure. If atheromatous dilatation exist, and that is the special condition, independent of aneurism, which gives rise to the accentuated second sound, there will probably be more or less pulsation in jugular fossa, atheromatous condition of superficial pulses (radials, temporal arteries, &c.) noticeable, and probably the arcus senilis.

The following points appear to me to be of importance in endeavoring to explain the mechanism of an accentuated second sound, under the circumstances now considered:—

1. The condition of the vessel, both in cases of aneurism and of dilatation with atheromatous degeneration, being such as greatly to diminish, if not to destroy, the support given to the circulation by the artery, there results an increased recoil of blood on the closing or closed valves.

2. It is possible that a morbid condition of the valvular apparatus itself heightens or intensifies the sound. The valves are not incompetent, but in such cases they are sometimes found thickened, and even presenting a hard surface at parts.

3. Something may, I conceive, be due to the increased calibre of the vessel, in connection with the altered condition of its internal tunic, in causing the peculiarity of sound.

But in whatever way the phenomenon is to be correctly explained, there can be no doubt of its existence being entitled to very considerable value as a clinical fact. I have noticed that the accentuated second sound is most readily appreciable over the aortic valves in both conditions. In the cases of dilatation of the aorta it has, however, been more decided in character over the manubrium sterni than in aneurismal cases. I may add, that in the majority of cases observed by myself, in which the accentuated second sound has existed under the circumstances now detailed, the expression, *booming* second sound, or second sound with *ringing boom*, has best described the acoustic character of the sound itself. I have known the booming sound to continue for many weeks, and in one remarkable case of aneurism lately observed (Walker, in Ward V., and afterwards in Ward IV.), for months, and thereafter become at first obscured, and ultimately entirely replaced by a loud diastolic murmur, telling plainly that the semilunar valves had become insufficient owing to the extension of the disease towards the heart.—*Edin Med. Jour.*

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

June 8th.—*Two cases of Partial Necrosis of the Tibia, with extensive Inflammation of the Bone, and with Anchylosis of the Ankle- and Knee-joints.*—Dr. Warren showed the specimens.

Case I.—Charles W. Clements, 19 years old, had a sharp attack of erysipelas in the right leg four years ago, which was accompanied by severe constitutional symptoms. In the course of the disease an ulceration appeared over the spine of the tibia, the knee- and ankle-joints both became stiff, the former in a bent position. At the same time he had a severe attack of pain in the left hip and thigh, which was supposed to be of a rheumatic character, and when he was able to leave his bed, the head of the femur was found to be dislocated backwards, where it can now be distinctly felt on the dorsum of the ilium; the leg is much inverted.

His right knee was formerly anchylosed at nearly a right angle; the integument was adherent along the spine of the tibia, and presented marks of old ulcerations. Through various fistulous openings rough bone could be felt, but nowhere in a detached state; small bits of bone have been occasionally removed, but never any extensive sequestra. The diseased leg was entirely useless; the dislocated limb he used in walking, with the aid of crutches. Amputation was performed about a hand's breath above the knee-joint.

The bone was nicely sawed through in a perpendicular direction, by Dr. Hodges; it presented a very interesting pathological condition. The patella was firmly anchylosed to the femur, and made a part and parcel of it, the reticular structure of the one running into that of the other. The cavity of the knee-joint was filled with fat, the femur and tibia being joined together by firm lateral bridges of osseous matter. The whole bone was in a state of chronic inflammation, the medullary cavity being almost obliterated, and the bony cylinder greatly thickened, and in parts very much indurated. In one or two parts a deficiency was observed in the bone, where necrosis had taken place to a very limited extent. At the ankle-joint the astragalus was found completely fused with the tibia, and the os calcis and other of the tarsal bones with the astragalus.

Case II.—Sarah Mara, 23 years old, entered the Hospital April 22d, 1863, with what was supposed to be an extensive necrosis of the left tibia. The disease had commenced two years before, with an inflammation of the knee and leg, attended with great swelling of the knee-joint, and coming on as a sequel to a fever. During this time, and since, the limb has been the seat of severe pain. Pieces of bone have been removed from the leg, from time to time, and it is covered with the marks of old ulcerations. The outline of the tibia is enlarged and irregular, and the skin over it is thickened and œdematous. The patella is displaced downwards and outwards, and she has undergone seven operations for the purpose of having it restored to its normal position. On account of the swelling of the knee, and weakness in the ligaments, the support given by it is very slight, and progression is slow and painful. The patient, therefore, had made up her mind to have the limb removed, and have it replaced by an artificial substitute, rather than undergo a protracted treatment of doubtful result. She remained in the Hospital three or four weeks before the operation, and at the end of this time a swelling appeared at the upper part of the popliteal space, indicating deep-seated mischief. The amputation was performed, at the same point as in the preceding case, May 30th, 1863.

On a like perpendicular section being made, the following appearances were presented. The ankle- and knee-joints were the seat of false anchylosis; the bone was everywhere thickened and indurated, and the medullary canal was almost obliterated. Fistulous openings led from the integument to small spots of carious bone, and at one point there was a bit of bone, about two inches long, partially separated from the rest. One end of it tipped backward towards the central cavity of the bone, but was connected by soft parts to the surrounding osseous tissue, and still retained vitality.

If it had not been for accidental circumstances, requiring amputation in both these cases, they might have gone on under treatment for an indefinite period, waiting for the separation of dead bone, as in ordinary cases of necrosis. The circumstance of the dislocation of the left hip in the former case, produced by its rheumatic condition, and its subsequent useful state, is worthy of remark. Both cases are progressing favorably.

June 8th.—*Obstruction of the Pulmonary Artery.*—Dr. Ellis showed the specimen, which came from an unmarried woman who died in the Hospital, in Dr. Gay's Wards. She entered, May 27th, for a varicose ulcer of the leg, and on June 3d was found to be feverish and weak, with a troublesome cough and bronchitic sputa, without apparent cause. The symptoms increased, and on the 5th she had great dyspnœa on the least attempt at motion. The pulse was quick and weak, and the heart's sounds very indistinct. Percussion showed nothing abnormal, but the respiration had a blowing sound, and the expiration was prolonged. She died on the 7th, all the symptoms having steadily increased.

At the *post-mortem* examination the pulmonary artery, from the bifurcation as far as it could be traced into the substance of the lung, was filled with firm coagula, which had evidently formed some time before death. Though apparently filling the artery, they did not adhere to the walls. Portions of them were of a pale-red color, and somewhat granular. There was some œdema of the pulmonary tissue, but in other respects it looked normal. The mucous membrane of the trachea and bronchia was somewhat reddened. The heart was softer than usual, and the tissue had a fatty appearance under the microscope. The uterus contained a fibrous tumor, between three and four inches in diameter. Its mucous membrane was smeared with reddish mucus.

June 8th.—*Rupture of the Septum of the Heart.*—Dr. Ellis showed the specimen, which came from a patient who had been crushed between two railroad cars which he was shackling, and who died shortly after being brought into the Hospital. Although the muscular strength was good when he entered, the excessively feeble pulse led Mr. Adams, the house pupil, to diagnosticate a lesion of the heart. One or more ribs were found to be fractured on the left side.

At the autopsy the sternum was found to be fractured transversely at the junction of the lower and middle thirds, without displacement.

The fourth, fifth and sixth ribs of the left side were fractured about midway between their extremities. Several ecchymoses were found on the anterior surface of the heart, beneath the pericardium. The ventricular septum was so extensively lacerated, transversely, that a large free opening existed between the ventricles. There was also a superficial linear laceration of the auricular septum, just beneath the lining membrane near this part.

Bibliographical Notices.

The Action of Medicines in the System; or, On the Mode in which Therapeutic Agents introduced into the Stomach produce their peculiar effects on the Animal Economy. Being the Prize Essay to which the Medical Society of London awarded the Fothergillian Gold Medal for 1852. By Frederick William Headland, M.D., B.A., F.L.S., &c. &c. Fourth American Edition. Philadelphia: Lindsay and Blakiston.

The fourth edition of this valuable work needs no new word of praise to be said in its behalf. It should have a place on the study table of every physician, and if often consulted, as it should be, cannot fail to give clearness to his views of the action of remedies, and lead him to prescribe understandingly what too many of us are apt to administer as a mere matter of routine. It is greatly to be regretted that there is so little exact study of the action of remedies by the profession at large, or at any rate, that so little of the result of their experience is published. We hope that the movement commenced in some of our district societies may lead to important results in this wide field of research. This book is very handsomely printed.

A Practical Handbook of Medical Chemistry. By John E. Bowman, F.C.S., formerly Professor of Practical Chemistry in King's College, London. Edited by Charles L. Bloxam, Professor of Practical Chemistry in King's College. Third American from the Fourth and Revised London Edition. With Illustrations. Philadelphia: Blanchard & Lea.

The fourth edition of this invaluable text-book of Medical Chemistry was published in England in October of the last year. The Editor has brought down the Handbook to that date, introducing, as far as was compatible with the necessary conciseness of such a work, all the valuable discoveries in the science which have come to light since the previous edition was printed. The American publishers have done well to re-produce it in this country at so early a date. The work is indispensable to every student of medicine or enlightened practitioner. It is printed in clear type, and the illustrations are numerous and intelligible.

Physiological Memoirs. By William A. Hammond, Surgeon-General U. S. Army, &c. &c. Philadelphia: J. B. Lippincott & Co. 1863. Pp. 348.

This handsome volume contains thirteen essays on various interesting physiological subjects, most of which have been published at different times in the *American Journal of the Medical Sciences.* Two of them, on two new varieties of Wourara, are the joint result of the researches of Dr. S. Weir Mitchell, of Philadelphia, and Dr. Hammond. The essays are upon important topics, such as the laws determining the quantity of urea eliminated by the kidneys, the physiological effects of tobacco and alcohol on the system, the nutritive value of certain articles of food, the action of various medicines, &c. Most of these papers are illustrated by carefully-conducted experiments by the author upon himself. The whole collection is very interesting, and will do much to sustain the reputation of the surgical head of our armies as a calm and faithful observer, and an unprejudiced student of the laws of human physiology.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JULY 23, 1863.

Physicians' Certificates of Exemption from the Conscription.—We presume there is scarcely one of our readers who has not been already, or who will not be called upon by many of his patients, who may have been drawn for military duty under the conscription act, for information as to whether their particular infirmities do or do not disqualify them for the life of a soldier, and to ask for certificates in relation to their cases to present to the examining surgeon. It is the duty, therefore, of the family physician to thoroughly acquaint himself with the conditions of the law of exemption, not so much on account of the interests of his patient, as to lighten as much as is in his power the labors of the Board of Enrolment. Many cases must present themselves for examination to the surgical officer of peculiar difficulty, and upon which it will be impossible for him to give a decision, if conscientious in the discharge of his duties, without some other testimony than the mere statement of the person conscript. Let no physician or surgeon imagine that he may appear desirous of throwing obstacles in the way of government, or of interfering with the duties of the enrolling officers, by furnishing to all who may apply to him certificates as to what he may know in relation to the applicant's past or present physical condition of a nature to render him unfit for the service of his country in the field. On the contrary, we are informed by the examining surgeon of one of the largest districts that such information is what he is particularly desirous of obtaining, as by this means he is better able to carry out his instructions in that spirit of leniency he is so strongly disposed to show in the discharge of his trying duties. Now that the War Department has so revised one of the terms of the Act as to allow a person to procure a substitute, or to pay the equivalent sum of three hundred dollars for one, *after* having been before the Board for examination, it is probable that the duties of the examining surgeons will be much increased, and any aid of the nature above alluded to will be the more thankfully received. It must be remembered, however, that the certificate thus given must be sworn to before a justice of the peace in every instance, or else it will not be received, and that in no case is it of any avail to its holder until it is presented in person to the Board of Enrolment.

Below will be found the official list, published by the Bureau of the Provost Marshal-General, of the diseases or infirmities which disqualify for military service.

"1. Manifest imbecility or insanity.

"2. Epilepsy. For this disability, the statement of the drafted man is insufficient, and the fact must be established by the duly attested affidavit of a physician of good standing, who has attended him in a convulsion.

"3. Paralysis, general, or of one limb, or chorea—their existence to be adequately determined.

"4. Acute or organic disease of the brain or spinal cord; of the heart or lungs; of the stomach or intestines; of the liver or spleen; of the kidneys or bladder—sufficient to have impaired the general health, or so well marked as to leave no reasonable doubt of the man's incapacity for military service.

"5. Confirmed consumption; cancer; aneurism of the large arteries.

"6. Inveterate and extensive disease of the skin, which will necessarily impair his efficiency as a soldier.

"7. Decided feebleness of constitution, whether naturally or acquired.

"8. Scrofula, or constitutional syphilis, which has resisted treatment, and seriously impaired his general health.

"9. Habitual and confirmed intemperance, or solitary vice, in a degree sufficient to have materially enfeebled the constitution.

"10. Chronic rheumatism, unless manifested by positive change of structure, wasting of the affected limb, or puffiness or distortion of the joints, does not exempt. Impaired motion of joints, and contraction of the limbs, alleged to arise from rheumatism, and in which the nutrition of the limb is not manifestly impaired, are to be proved by examination, while in a state of anæsthesia, induced by ether only.

"11. Pain, whether simulating headache, neuralgia in any of its forms, rheumatism, lumbago, or affections of the muscles, bones, or joints, is a symptom of disease so easily pretended, that it is not to be admitted as a cause for exemption, unless accompanied with manifest derangement of the general health, wasting of a limb, or other positive sign of disqualifying local disease.

"12. Great injuries, or diseases of the skull, occasioning impairment of the intellectual faculties, epilepsy, or other manifest nervous or spasmodic symptoms.

"13. Total loss of sight; loss of sight of right eye; cataract; loss of crystalline lens of right eye.

"14. Other serious diseases of the eye, affecting its integrity and use, e. g., chronic ophthalmia, fistula lachrymalis, ptosis (if real), ectropion, entropion, &c. Myopia, unless very decided, or depending upon some structural changes in the eye, is not cause for exemption.

"15. Loss of nose; deformity of nose so great as seriously to obstruct respiration. Ozœna, dependent upon caries in progress.

"16. Complete deafness. This disability must not be admitted on the mere statement of the drafted man, but must be proved by the existence of positive disease, or by other satisfactory evidence. Purulent otorrhœa.

"17. Caries of the superior and inferior maxillary, of the nasal or palate bones, if in progress; cleft palate (bony); extensive loss of substance of the cheeks, or salivary fistula.

"18. Dumbness: permanent loss of voice, not to be admitted without clear and satisfactory proof.

"19. Total loss of tongue; mutilation or partial loss of tongue, provided the mutilation be extensive enough to interfere with the necessary use of the organ.

"20. Hypertrophy or atrophy of the tongue, sufficient in degree to impair speech or deglutition. Obstinate chronic ulceration of the tongue.

"21. Stammering, if excessive and confirmed; to be established by satisfactory evidence, under oath.

"22. Loss of a sufficient number of teeth, to prevent proper mastication of food, and tearing the cartridge.

"23. Incurable deformities, or loss of part of either jaw, hindering biting of the cartridge, or proper mastication, or greatly injuring speech; anchylosis of lower jaw.

"24. Tumors of the neck, impeding respiration or deglutition; fistula of the larynx or trachea; torticollis, if of long standing and well marked.

"25. Deformity of the chest, sufficient to impede respiration, or to prevent the carrying of arms and military equipments. Caries of the ribs.

"26. Deficient amplitude, and power of expansion of chest. A man 5 feet 3 inches (minimum standard height for the Regular Army) should measure not less than thirty inches in circumference, immediately above the nipples, and have an expansive mobility of not less than two inches.

"27. Abdomen grossly protuberant; excessive obesity. Hernia, either inguinal or femoral, ventral, umbilical, &c.

"28. Artificial anus; stricture of the rectum; prolapsus ani; fistula in ano is not a positive disqualification, but may be so if extensive, or complicated with visceral disease.

"29. Old and ulcerated internal hæmorrhoids, if in degree to impair the man's efficiency. External hæmorrhoids are no cause for exemption.

"30. Total loss, or nearly total loss of penis; epispadias or hypospadias, at the middle or near the root of the penis.

"31. Incurable, permanent, organic stricture of the urethra, in which the urine is passed drop by drop, or complicated by disease of the bladder. Recent or spasmodic stricture of the urethra does not exempt. Urinary fistula.

"32. Incontinence of urine being a disease frequently feigned, and of rare occurrence, is not, of itself, a cause for exemption. Stone in the bladder, ascertained by the introduction of the metallic catheter, is a positive disqualification.

"33. Loss, or complete atrophy of both testicles, from any cause; permanent retention of one or both testicles within the inguinal canal, but voluntary retraction does not exempt.

"34. Confirmed or malignant sarcocele; hydrocele, if complicated with organic diseases of the testicle. Varicocele and circocele are not, in themselves, disqualifying.

"35. Excessive anterior and posterior curvature of the spine; caries of the spine.

"36. Loss of an arm, fore-arm, hand, thigh, leg, or foot.

"37. Wounds, fractures, tumors, atrophy of the limb, or chronic diseases of the joints or bones, that would impede marching, or prevent continous muscular exertion.

"38. Anchylosis, or irreducible dislocation of the shoulder-, elbow-, wrist-, hip-, knee- or ankle-joint.

"39. Muscular or cutaneous contractions, from wounds or burns, in degree sufficient to prevent useful motion of a limb.

"40. Total loss of a thumb, loss of ungual phalanx of right thumb.

"41. Total loss of any two fingers of same hand.

"42. Total loss of index finger of right hand.

"43. Loss of the first and second phalanges of the fingers of the right hand.

"44. Permanent extension and permanent contraction of any finger except the little finger; all the fingers adherent or united.

"45. Total loss of either great toe; loss of any three toes on the same foot; all the toes joined together.

"46. The great toe crossing the other toes, with great prominence of the articulation of the metatarsal bone, and first phalanx of the great toe.

"47. Overriding or superposition of all the toes.

"48. Permanent retraction of the last phalanx of one of the toes, so that the free border of the nail bears upon the ground; or flexion at a right angle of the first phalanx of a toe upon a second, with anchylosis of this articulation.

"49. Club-feet, splay feet, where the arch is so far effaced that the tuberosity of the scaphoid bone touches the ground, and the line of station runs along the whole internal border of the foot, with great prominence of the inner ankle; but ordinary large, ill-shaped, or flat feet, do not exempt.

"50. Varicose veins of inferior extremities, if large and numerous, having clusters of knots, and accompanied with chronic swellings or ulcerations.

"51. Chronic ulcers; extensive, deep and adherent cicatrices of lower extremities.

"52. *Stature.* If the height of the drafted man be greater than six feet four inches, or less than five feet three inches, he is disqualified for military service. The height in all doubtful cases to be determined by accurate measurement, the recruit being made to stand erect on his bare feet, and care being taken that he neither increases nor lessens his stature by voluntary effort.

"53. No certificate of a physician or surgeon is to be received in support of the claims of drafted men for exemption from military service, unless the facts and statements therein set forth are affirmed or sworn to before a civil magistrate competent to administer oaths."

LONG ISLAND COLLEGE HOSPITAL.—The annual commencement succeeding the fourth session of this flourishing medical school was held in Brooklyn on the 2d inst. The number of matriculants during the term was 50; the number of graduates 16, to whom was administered the Hippocratic oath by Dr. Mitchell. Prof. Austin Flint, M.D., addressed the graduating class, and Alfred W. Merrill, of New York, gave the valedictory address on the part of the class.

HARVARD MEDICAL SCHOOL.—The following is a list of the gentlemen who received their medical degrees on the 15th inst., with the subjects of their theses:—

Name and Residence.	*Thesis.*
Edward Roland Cutler, Sudbury,	*Variola.*
Stephen William Driver, Cambridge,	*The Homologue of Ovulation.*
George Wyman Fay, Weymouth,	*Medical Science.*
William Henry Finn, Philadelphia, Pa.,	*Diseases of the Knee-joint.*
James Sumner Greene, Fitchburg,	*Intravasation of Air as a cause of Death.*
John Francis Hurley, Boston,	*Cholera Infantum.*
David Mack, Jr., Belmont,	*Chronic Rheumatism.*
Alexander Sydney Mackenzie, Cape Breton,	*Alcoholismus, Acute and Chronic.*
Franklin Nickerson, Hingham,	*Acute Idiopathic Peritonitis.*
Giles Moseley Pease, Boston,	*Victus Vegetabilis.*
Geo. Bachelder Peck, Providence, R. I.,	*Difficulties in Diagnosis.*
Gustavus Percival Pratt, Cohasset,	*Treatment of Stumps.*
Samuel Erb Shantz, Berlin, C. W.,	*General Paralysis.*

D. HUMPHREYS STORER,
Dean of the Medical Faculty.

July 20th, 1863.

THE PHYSIOLOGY OF MORMONISM. By CHARLES H. FURLEY, M.D., Assistant Surgeon U. S. Army.—On a recent visit to Salt Lake I had good opportunities for observing and inquiring into the effects of poligamy, as practically exemplified in the case of that people. While sojourning there I mingled much amongst them, visiting them in their homes, and seeing them at their public assemblies and places of business and pleasure; wherefore, I feel qualified to speak of the results of their peculiar institutions, both in their social, physiological and intellectual bearings. It is, however, chiefly as a physiologist that I shall, at present, consider the subject, and, in this view, I must say, the consequences of the Mormon system, as we find them illustrated in the inhabitants of Salt Lake, are, in every aspect of the case, hurtful and degrading.

A marked physiological inferiority strikes the stranger, from the first, as being one of the characteristics of this people. A certain feebleness and emaciation of person is common amongst every class, age and sex; while the countenances of almost all are stamped with a mingled air of imbecility and brutal ferocity. This, in fact, is their true character: they being obsequious and yielding to their superiors—to strangers sullen and spiteful, while among themselves they are cold and unamiable. In the faces of nearly all, one detects the evidences of conscious degradation, or the bold and defiant look of habitual and hardened sensuality—the women, with but few exceptions, shrinking from the gaze of the stranger, as if fully alive to the false and degrading position they are forced to occupy. Some seem overwhelmed with shame; others wear a forlorn and haggard appearance, while a few put on a cheerful air, affecting to be satisfied with their sad condition.

Without entering into minutiæ, I may instance the following as a few of the bodily peculiarities that strike the medical man in mingling with the inhabitants of Salt Lake City:—Besides the attenuation mentioned, there is a general lack of color—the cheeks of all being sallow and cadaverous, indicating an absence of good health. The eye is dull and lustreless—the mouth almost invariably coarse and vulgar. In fact, the features—the countenance—the whole face, where the divinity of the man should shine out, is mean and sensual to the point of absolute ugliness. I have nowhere seen anything more pitiful than the faces of the women here, or more disgusting than the entire appearance of the men. It is a singular circumstance that the physiognomical appearances of the children are almost identical. The striking peculiarity of the facial expression—the albuminous types of constitution, the light-yellowish hair, the blue eye, and the dirty, waxen hue of the skin, indicate plainly the diathesis to which they belong. They are puny and of a scorbutic tendency. The external evidences are numerous that these polygamic children are doomed to an early death —the tendency to phthisis pulmonalis being eminent and noticeable.

The evidences of natural degeneracy are more palpable in the youthful than in the adult population; the evils of this pernicious system not having taken full effect upon the latter. A more feeble and ill-looking race of children I have not met with, even among the vice and squalor of our larger cities. One looks in vain for those signs of constitutional vigor and sturdy health common to the juvenile portion of what may be considered but a country town. So far as food, climate and other external causes are concerned, the children, as well as the adults here, are favorably circumstanced; their sanitary conditions are generally good: wherefore, we must look to the evils engendered by their religious and social system for the agents of this physical inferiority. In this system, the physiologist and moralist will not fail to detect the ample causes for a decay even so marked and melancholy. That this is not a mere fancy, or the result of prejudice, I may say, the same impression has been made upon all who have ever visited Salt Lake City, and published their opinions on the subject. Indeed, we find, in all the instincts and habits of these people, full confirmation of the physical facts above set forth. They are as gross and vulgar in all their tastes, thoughts and styles of expression as in their bodily appearance. More than half their language is made up of slang phrases; nor do they relish the efforts of their preachers, unless well interlarded with this style of speech. As a consequence, these men indulge freely in the most trivial, and, sometimes, in the most vulgar and blasphemous expressions, to the great delight and mental titillation of their hearers.

The Mormon, with few exceptions, is low-bred and vulgar. Dancing is his favorite amusement—forming, in fact, not only a pastime, but a part of his religious exercises. His conversation is of the most simple and commonplace character. His thoughts never soar above his amusements or domestic affairs. He deals in the gossip and scandal of his neighborhood. The Mormons, of both sexes, are an ill-looking set, and when we have said that they are frugal, industrious and content, we have enumerated about all the virtues they can claim, or that we can conscientiously concede to that wretched system of degradation known as Mormonism.

Under the polygamic system, the feeble virility of the male and the precocity of the female become notorious. The natural equilibrium of the sexes being disturbed, mischief of this kind must ensue; as a consequence, more than two-thirds of the births are females, while the offspring, though numerous, are not long lived, the mortality in infantine life being very much greater than in monogamous society, and, were it not for the European immigration, the increase of inhabitants would be actually less than in Gentile communities. The fecundity of the women is remarkable, as might be expected, considering that the husband cohabits with the wife only at such periods as are most favorable to impregnation.—*San Francisco Medical Press.*

SARRACENIA PURPUREA AS A REMEDY FOR SMALLPOX.—In a letter to *The Times* of Tuesday last, Surgeon-Major Logie, Royal Horse Guards (Blue), stationed at Windsor, writes that "Some time ago, seeing a paper written by Assistant Surgeon Miles, of the Royal Artillery, on the efficacy of the North American plant called the *Sarracenia purpurea*, or pitcher plant, in the treatment of smallpox among the Indians, my colleague (Mr. Agnis) and myself have given this remedy, which has been imported into this country by Mr. Miles to the house of Messrs. Savory & Moore, a fair trial; and I am happy to say the eleven cases in our hands have recovered under its peculiar influence. This remedy I consider a boon to the public, for this reason—it is so easily managed; any one can make a decoction or infusion of the root, like tea. An ounce of the root is sliced and infused in a quart of water, and allowed to simmer down to a pint; this is given in two-tablespoonful doses every four hours, while the patient is well nourished with beef-tea and arrowroot. Four of the cases in my hospital have been severe confluent cases; they have, throughout the disease, all been perfectly sensible, have had excellent appetites, been free from pain, and have never felt weak. The effects of this medicine, which I have carefully watched, seemed to arrest the development of the pustules, killing, as it were, the virus from within, thereby changing the character of the disease and doing away with the cause of pitting, and thus avoiding the necessity of gutta-percha and india-rubber applications, or of opening the pustules. In my opinion, all anticipations of disfigurement from pitting may now be calmed, if this medicine is given from the commencement of the disease. Before leaving this subject, I may here caution the public that the useful part of the plant is its root, as recommended by Mr. Miles; and it can only be obtained from Messrs. Savory & Moore, to whose house alone it has been imported. With the usual kindness of Dr. Gibson, the Director-General, I have been amply supplied with it for the use of my regiment. So much am I impressed with the efficacy of it in smallpox over the old mode of treatment, that I hope to hear of it in every country gentleman's medicine-chest, and before long that we shall see no more faces, as described by Dickens, like the interior surfaces of sliced muffins."—*London Lancet,* May 30.

THE UPAS POISON.—A DANGEROUS EXPERIMENT.—The upas tree of Java, known to botanists as the *Upas antiar* or *Antiaris toxicaria*, produces a milky juice with which weapons are poisoned. The poisonous principle is called *antiarin*, and contains $C_{14} H_{10} O_5$. It forms small pearly crystals, soluble in 27 parts of boiling water, and also in alcohol, but scarcely so in ether. Introduced in a wound, it rapidly brings on vomiting, convulsions and death. The *Abeille Médicale* states that a short time ago a scientific gentleman at Berlin received a small quantity of the condensed juice of the upas, and resolved to try the effects of it upon himself. One afternoon he accordingly took three grains of this drug, which he found very bitter and rather saltish. Immediately afterwards he felt extremely gay, and a bad headache which he had at the time disappeared; but after a while he experienced a sensation of oppression in the stomach. Nevertheless, he had the imprudence to go out; on turning a corner he became aware of a considerable stiffness along the spine; this was about half an hour after having taken the poison. An hour later, while taking a cup of coffee, he felt a violent shock throughout the body and stiffness at the extremities; at the same time his head was thrown backwards, he lost all power of speech, but his mental faculties remained unimpaired. There was a slight remission of these symptoms for a few minutes, and then a fresh attack came on; and this continued until the patient at length succeeded in expressing a wish to be taken to the hospital of La Charité. On the way, a new attack impeded his progress. These attacks were attended with but little pain; deglutition was very difficult, and the patient felt very weak. At the hospital, emetics were immediately administered to expel the poison, if any remained; the vomiting was attended with sudden starts, spasms in the glottis, and temporary difficulty of breathing; pulse 72. Thirty drops of laudanum were administered at the rate of ten for every quarter of an hour, and then thirty more, in three parts, at intervals of half an hour. The patient fell asleep, but was often awaked by the contraction of the muscles of the back and neck. Laudanum was again administered, and sleep returned. On the following morning the patient felt very weak, but only complained of stiffness in the left muscles of the neck; pulse 66. Wine and light food were now given instead of medicine, and on the sixth day the patient left the hospital perfectly recovered.—*London Chemist and Druggist.*

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, July 18th, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - - -	39	33	72
Ave. mortality of corresponding weeks for ten years, 1853—1863,	41.8	37.7	79.5
Average corrected to increased population - - - -	00	00	87.60
Death of persons above 90 - - - - - - - -	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
4	4	0	5	0	2	4	0

Married,—In Perkinsville, Vt., 8th inst., O. F. Bigelow, M.D., of Brandon, to Miss Mary H. Pingry, of P.

Deaths in Boston for the week ending Saturday noon, July 18th, 72. Males, 39—Females, 33.—Inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 1—cancer, 3—cholera infantum, 6—cholera morbus, 1—consumption, 4—convulsions, 1—croup, 4—cyanosis, 1—cystitis, 1—debility, 1—diarrhœa, 1—dropsy, 4—dropsy of the brain, 3—drowned, 3—dysentery, 2—typhoid fever, 4—infantile disease, 4—disease of the kidneys, 1—inflammation of the lungs, 5—marasmus, 2—paralysis, 2—pleurisy, 1—puerperal disease, 1—imperforate rectum, 1—rheumatism, 1—shot (in the riot), 7—inflammation of the uterus, 1—unknown, 4.

Under 5 years of age, 27—between 5 and 20 years, 13—between 20 and 40 years, 12—between 40 and 60 years, 14—above 60 years, 6. Born in the United States, 55—Ireland, 13—other places, 4.

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EUROPEAN OPHTHALMIC INSTITUTIONS. No. 1.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS.—I have delayed complying with your request, to send you some account of the Ophthalmic Institutions of Europe, for the reason that I have been too busy with seeing, to find time for describing them. At last, however, I will endeavor to give you short sketches of what is going on in the different schools of this department of our Art—describing briefly what I have seen, rather than occupying much space with criticisms or comparisons of different ideas as to theory and treatment.

I must not omit to acknowledge, in the first place, the distinguished kindness which I have everywhere experienced; in the great facilities which have been afforded and the ready explanations made to me, even from those whose crowded amphitheatres and incessant duties might well excuse them from attentions to a stranger.

No city, and I may say scarcely a country of the continent, contains so large a number of gentlemen who are deservedly more or less distinguished in the treatment of diseases of the eye, as London. Besides the largest, the Royal London Ophthalmic Hospital, in what is called Moorfields, smaller Eye Hospitals exist in other sections of the city—and, in addition to these, special departments have been created in nearly all the great general hospitals, which are under the charge of most skilful men, some of whom are, while others are not, also attached to the exclusively ophthalmic institutions.

The majority of these gentlemen have been among the most prompt to adopt the improvements in treatment in which the past few years have been so fertile; especially those resulting from the invention of the ophthalmoscope, the application of iridectomy to the relief of glaucoma and other destructive internal affections of the eye, and the management of those disabilities of function resulting from defective power of accommodation of the organ to near or distant objects. In all these and yet other respects, they have closely followed the rapid advance of the great German authorities; and I could distinctly trace the advantages resulting from the international Congress, which had brought the oculists of different countries into intimate relations with each other.

A great advantage, for the student, lies in the fact that the hours for visits and operations differ at various institutions—so that he may, if he chooses, attend more than one on the same day. Furthermore, the number of students being less than in the cliniques of some of the distinguished men of the continent, a better opportunity is afforded for examining the cases and seeing operations. At Moorfields Hospital, the hours are from 9 to 12 or even 1 o'clock; four surgeons, at least, being in attendance every day, and several hundred cases prescribed for. A large number of cases present themselves in which examinations with the ophthalmoscope are required, and a separate department of the rooms for out-patients is devoted to these investigations, and to those connected with disturbances of the refractive power of the eye. Operations are performed at 12, and the good judgment and skill displayed by some of the gentlemen compares well with that of the famous operators of Berlin and Vienna.

There is a great preponderance of those forms of inflammation of the eye depending on a strumous diathesis; while catarrhal inflammation, with the resulting changes of the conjunctiva, are proportionally more rare than with us in America or than in France or Italy. I cannot but think the atmospheric and hygienic conditions of London must have much influence in developing these forms of disease. They seem, at all events, to have their effect on the habits of the patients, the dingy appearance of whose dress and negligence of person exhibit a marked contrast to the same class who present themselves at the charitable consultations of Paris or Berlin. Vienna is an exception to the general continental rule—as a large number of the patients there are Polish Jews, who, I think, are scarcely to be surpassed in filthiness.

I was struck by the number of cases of hereditary syphilitic inflammation of the eye in children. In this respect London enjoys an eminence—for I have seen these cases rarely in Germany, Italy or France, among the same class of the population. The treatment combines the mildest mercurials with the freest use of tonics.

Most of their cases of iritis in adults, which were numerous, were regarded by the surgeons as of syphilitic origin—and, according to my own observation, the relative number of cases depending on a rheumatic diathesis, was certainly much less than at Paris or Vienna. Moderate use of alterative treatment was largely reinforced by tonics. Strumous affections of the cornea in children, accompanied by photophobia, were treated by local applications of solution of atropia; those of young adults by dusting the eye with finely powdered calomel; general tonic regimen being ordered in both cases.

As a rule, internal remedies are given to a greater extent than on the continent, where local treatment is more exclusively relied on in the greater number of the diseases of the eye.

Besides continuing my descriptions, I hope to be able in another letter to send you an account of the experiments being made by Prof. Gräfe and others with the new remedy, the "Calabar bean," recently discovered at Edinburgh to be capable of acting on the eye in a contrary sense to belladonna. This long-sought-for acquisition seems to have been at last attained, and promises, I think, to be a most valuable addition to the means at our command for the relief of some disturbances of vision, for which glasses have seemed hitherto to be the only effectual resource. The quantity of the remedy to be obtained has been so small that its effects have been only partially observed; but its power of producing great contraction of the pupil is most clearly established. HENRY W. WILLIAMS.

Berlin, Prussia, 25 June, 1863.

OSSIFICATION OF THE SPLEEN.

[Communicated for the Boston Medical and Surgical Journal.]

HAVING seen, in a recent number of the JOURNAL, a very interesting case of ossific deposit in the spleen, communicated by one of our army surgeons, with a request to hear from others on the same subject, I am induced to send the following.

In making a post-mortem examination, in a case of sudden death from apoplexy, the spleen was found to consist entirely of an osseous shell, with internal bony partitions. Its size was increased and figure changed. If you imagine a goose-egg with a small piece of spleen attached at one end, you will have a tolerably good idea of the specimen now before me.

The subject of this was a male, more than eighty years of age; he had been many years a British soldier, and served a long time in India. Several years previous to his death, I operated on him for strangulated hernia; he had a rapid recovery, and always seemed otherwise in good health.

Andral relates a case similar to the above.—(*Anat. Pathol.*, tom. ii., p. 433.) Others have seen the peritoneal covering of the spleen partially ossified. JOHN BRANCH, M.D.

St. Albans, Vt., July 18, 1863.

CYCLOPEAN MONSTROSITY.

[Communicated for the Boston Medical and Surgical Journal.]

MRS. C., in her first pregnancy, was taken, as she supposed, with labor pains on Monday, Sept. 30, 1850. Water began to discharge itself in the morning, soon after she was taken, and continued until the time of delivery, the Saturday following, about noon. She was then delivered of a dead fœtus, intended for a male child (weight five pounds). She was near the end of the eighth month of her gestation. The child's head was seventeen inches in circumference, and eleven inches from ear to ear. When punctured, it discharged about 1½ pint of water. The organs of generation were imperfect, only the glans penis being formed. The limbs, body, under-jaw and mouth were perfect. There was but one eye, and that at the natural place of junction of the ossa nasi and os frontis; it was large and open. Immediately above it, was an imperfect resemblance of a nose, with the nasal bones directly over the eye at the lower edge of the os frontis, pointing directly upwards as far as the nasal bones extended. The cartilage and soft part attached thereto were directed downwards, and measured 1¼ inch in length. At the end and in the centre of it, was a slight perforation, into which a probe could not be passed more than one sixteenth of an inch.

Both parents were large, well formed and healthy.

Littleton, N. H., June 29, 1863. WM. BURNS, M.D.

NON-FORMATION OF CICATRIX IN RE-VACCINATION.

[Communicated for the Boston Medical and Surgical Journal.]

ON account of the prevalence of variola, I had occasion, during the past winter, to re-vaccinate a number of patients. In nine cases the vesicle ran through the regular stages; but in one only did I observe the characteristic circular scar. In referring to the medical works in my possession, I found it had escaped the attention of their respective authors; or, if aware of the fact, they considered it unimportant. I therefore mentioned the subject to an old practitioner, and was informed it was nothing new to him, he having observed the same years ago, and that not one in fifty would have the second "pock-mark."

Although this may be deemed an unimportant communication, still, when considered physiologically, it cannot, I am sure, be wholly devoid of interest. AMOS SAWYER.

Hillsboro', Ill., April 25th, 1863.

ON THE IMMUNITY ENJOYED BY THE STOMACH FROM BEING DIGESTED BY ITS OWN SECRETION DURING LIFE.

BY FREDERICK W. PAVY, M.D.

THE author referred to the communication by John Hunter "On the Digestion of the Stomach after Death," published in the "Philosophical Transactions" for 1772. In this communication Hunter notices that in occasional instances, especially in persons who have died of sudden and violent deaths, the stomach is found on inspection to have undergone solution, to the extent of perforation, from the action of its own secretion upon it. Hunter considered that this could only have taken place after death; and to account for why the same occurrence did not ensue during life, he adduced the living principle as constituting the protecting agent. The fact that parts of living animals, as shown by Claude Bernard of Paris, are susceptible of digestion when introduced through a fistulous opening into a digesting stomach, proved that Hunter's explanation does not stand the test of experiment. The author corroborated Bernard's results upon frogs, and referred to an experiment in which he had also obtained the digestion of the extremity of the ear of a living rabbit.

The view at present most generally entertained is, that the epithelial lining or mucus protects the stomach from undergoing digestion during life. This it is supposed is acted upon and dissolved, but being as constantly renewed, the stomach escapes injury. There being no longer the power of producing epithelium after death, accounts for the occurrence of the solution that may then be observed.

To test this view, the author removed a patch of mucous membrane about the size of a crown piece from the stomach of the dog. Food was afterwards digested without, however, the denuded stomach showing the slightest sign of attack. It thus appearing that the stomach resisted digestion notwithstanding the assumed protecting layer had been removed, it became evident that something besides the epithelial lining was required to account for the security enjoyed.

Seeing that the question was still open for explanation, the following was the view propounded by the author. The existence of acidity, it was first remarked, is an absolutely essential condition for the accomplishment of the act of digestion. During life the walls of the stomach are most freely permeated by a current of alkaline blood. Under such circumstances it would appear impossible that any digestive action could be effected. There would be one condition that would neutralize the other. Acidity is needful for digestion, and alkalinity is a constant character of the blood. As long, therefore, as so free a circulation of this alkaline fluid should be maintained (and this happens to be one of the necessary conditions of life), the stomach will be supplied with a source of protection competent to afford it the security from attack by its own secretion that it enjoys.

Digestion of the stomach may be effected after death, because the blood, being then stagnant, is incapable of offering the barrier produced by a circulating current.

Experiments were mentioned in which the circulation through the stomach had been arrested during life so as to imitate the condition, as far as the stomach was concerned, that exists after death. Although this was effected whilst the process of digestion was actively proceeding, yet it was only in some cases that the mucous membrane of the stomach was attacked. On repeating the experiment, however, having previously introduced a dilute non-corrosive acid (the phosphoric and citric were the acids employed) into the stomach, the result was solution and perforation in a short space of time.

The author had expected, when he commenced his experiments, to have obtained the same result upon arresting the circulation through the stomach as occurs after death; but it became evident to him on reflection that although the circulation through the stomach may be stopped by ligatures during life, yet the conditions are not thereby rendered completely identical with those prevailing after death. There is still a circulation all around the stomach, and from the facility with which the permeation of fluids takes place, a certain amount of counteractive influence would still be exerted. By the artificial introduction, however, of an acid into the cavity of the stomach before its vessels were ligatured, the surrounding circulation became inadequate to afford the required neutralizing power, and perforation therefore quickly resulted.

It did not appear to the author that the digestion of the living tissues of animals referred to in the first part of his paper formed any valid objection to his view. In the case of the frog's legs, he considered it might be fairly taken that the amount of blood possessed by the animal would be inadequate to furnish the required means of resistance. In the case of the rabbit's ear, the vascularity of the part being so much less than that of the walls of the stomach, he thought there was nothing unreasonable in conceiving that, whilst the one might receive protection through the circulating alkaline current, the other might be unable to resist attack. There was no comparison between the position of the stomach and that of the rabbit's ear, and the question, according to his view, resolved itself into degree of power possessed by the acidity of the contents of the stomach on the one hand, and the alkalinity of the circulating current on the other.

The author concluded by adducing experimental evidence to show that pepsine was contained in the walls of the stomachs of persons who had died from severe diseases, as well as in the normal fasting and digesting stomach.—*Proceedings of the Royal Society, Jan.*, 1863.

Bibliographical Notices.

On Diseases of the Skin. By Erasmus Wilson, F.R.S. Fifth American, from the fifth and revised London edition. With Plates and Illustrations on Wood. Pp. 694. Philadelphia: Blanchard & Lea. 1863.

It is now six years since the fourth edition of this work appeared, and we had confidently expected to find in the next one that Mr. Wilson might issue, such changes as the more advanced knowledge of general pathology and the recently published writings of such distinguished dermatologists as Hebra, Bazin, Hardy, Bärensprung and others might have suggested to a mind open to conviction. We were much disappointed, therefore, to find that with the exception of the addition of the plates previously published in a separate form, and of a few trifling paragraphs in the body of the text, not amounting to a couple of pages, the present edition is a mere reprint of what the work has always been, namely, an exposition of the writer's individual views only, unchanged and unchangeable. It is unfortunate for our author that Willan once made an unscientific classification of skin diseases according to their external appearance, and also that the "humoral" theory of disease has been applied to the explanation of their pathology, for although his studies of the minute anatomy of the skin have taught him to modify the former to a certain extent, and his experience in the management of its affections has convinced him that the latter cannot be wholly correct in practice, these old, and, in the light of modern science, perfectly untenable theories still influence him so much, that they form to-day almost wholly the groundwork of his systems of classification, pathology and general therapeutics. We find, accordingly, that although he has divided cutaneous affections into two primary groups, namely, diseases affecting the general structure, and diseases affecting the special structure of the skin, still all the common and important diseases are arranged after the method of Willan, whom he affects to ridicule, under the following groups: exanthemata, papulæ, vesiculæ, pustulæ, bullæ and tubercula; and this, too, after confessing that erythema, lichen, eczema, impetigo and psoriasis not only occur in conjunction with, but are really convertible into each other. The folly of such an arrangement seems perfectly apparent to himself, for he states in his introductory portion that although the above diseases "are in their fully developed state strikingly dissimilar, yet in their pathological nature they may be and are essentially the same," as if it were not pathology alone which should guide us in the study and classification of disease. What would be thought of a modern writer who should attempt to arrange all pulmonary affections according to the varieties of cough they might exhibit in their different stages? To classify diseases of the skin, then, according to the form of eruption they may present, or even to group them upon the same plan, although their pathological unity be tacitly recognized, for the sake of rendering diagnosis easy or of conforming to ancient custom, is only perpetuating an error and a scientific impossibility. There is no such thing, generally speaking, as a papular disease, or a vesicular disease, or a pustular disease, *per se*. Nearly every affection, to which the skin is liable, may exhibit at some period of its course, or be characterized by, maculæ, papulæ, vesiculæ, pustulæ or squamæ. It may be said, on the other hand, that we should look for the so-called typical or earliest form of eruption; but with what propriety, for example, can eczema be classed among the vesiculæ even upon this plan? For not only does it exhibit every form of efflorescence to which we have alluded, but it is the exception to find vesicles in any case of this disease. Its earliest manifestation may be the formation of an erythema, a scale, a fissure, a papule, a vesicle or a pustule, or the same efflorescence may exhibit in the course of its progress nearly all the phases above mentioned. To prove this we have only to follow the method, advised by Prof. Hebra, of rubbing upon the healthy skin some irritant like croton oil, and thus produce an artificial eczema. This produces in some persons a redness, in some well-formed vesicles, in some prominences or papules, and in others red points. Both the papules and vesicles are formed about the hair follicles, and are the result of their hyperamic and infiltrated condition. If we continue the experiment we shall find vesicles forming by degrees in every case. In those individuals who exhibited at first the papules only, the epidermal covering of the eruption becomes gradually thinner, and the exudation collected beneath shines through; or, in other words, the papules have become vesicles. If we push the use of our irritant still farther at this stage, the vesicles become more numerous, larger, run together, discharge their contents by bursting or scratching, and excoriated patches are formed, which are vivid, red and moist. In fact, we have immediately under our eye the rete mucosum, which allows the free discharge of the fluid blastema, now that the upper layers of the epidermis are removed. If we leave the process now to itself, this fluid will gradually stiffen by exposure to the air, and form a crust over the affected spots, beneath which the epidermal cells are again developed, and the skin, after remaining red for a while, is restored to its former condition. In cases where the papules and vesicles have not undergone this last stage of development, they disappear by the reabsorption of their contents, and the effete epidermis is thrown off in the form of scales. If, however, instead of leaving nature to set up her reparative process at this stage, we continue the application of the irritating substance, we see instead of the limpid and watery fluid, which was discharged from the excoriated surface, pus cells to form in the blastema, and soon we have before us a suppurating patch, which likewise dries up, and forms thick crusts or scabs. Here, then, we have arrived at the end of the process. We have seen artificially produced five different forms of eczema, viz.: squamosum, papulosum, vesiculare, rubrum, and impetiginosum, or, as writers describe them, Pityriaris rubra, Lichen, Eczema, and Impetigo.

We see, therefore, that this affection might quite as appropriately have been placed in several of the other groups of Wilson as among the vesiculæ, and it is only because a too narrow definition has been adopted that he has been obliged to call the same individual pathological process on one day Strophulus, on another Pityriasis, on another Lichen, on another Eczema, on another Psoriasis, and on another Impetigo. This, in fact, he is obliged to admit, for we find him first stating that the papules of lichen "are large and soft on the face, and also large and soft in infants, in whom they are called strophulus," then that "the difference between eczema and lichen is not one of cause, but of manifestation—the difference of manifestation being chiefly due to difference of temperament and sex. Eczema is more common in females than in males, in the sanguine and lymphatic than in the choleric and nervous temperaments. Eczema, moreover, is never present without lichen, and only becomes eczema when the vesicles are in excess over the papules. Eczema may also have a mingling of the pustules of impetigo, or the ichorous contents of its vesicles may become purulent; in either case, it ceases to be simple eczema, and is then eczema impetiginodes." Still farther on he adds, "Impetigo is, in fact, a pustular eczema, just as eczema is an ichorous lichen, and the latter a papulous erythema."

The chapters on general Pathology and Therapeutics are supplementary to each other, for Mr. Wilson is a strong humoralist, and his treatment of skin diseases accordingly is chiefly constitutional. He says in his preface that "Humoralism was early adopted as an explanation of cutaneous diseases, and the practice which has been founded upon that theory has been most successful in the treatment of these diseases." Without intending to deny that many constitutional diseases may exhibit themselves in some manner by sympathetic cutaneous symptoms, we maintain that the skin in itself is a great and complex organ, and is as liable as the lungs, liver and kidneys to individual diseases, and moreover that the results of *local* treatment prove that it is a fallacy to believe that skin diseases are merely indications of some deeper seated malady or blood-change, requiring accordingly constitutional remedies. We believe that it is in rare instances only that the ordinary chronic affections of the skin stand in any relation to the general health that we can distinctly recognize. In this connection we would introduce an extract from the latter part of the preface of the volume before us, which, we feel sure, was written after the book itself had passed into the printer's hands:—

"That certain diseases obviously proceed from a local cause, and are in their essence local diseases, and independent of constitutional influence, is a truth which has been strongly impressed upon us by the celebrated dermatologist of Vienna, Hebra. Many cutaneous diseases which in this country, and with our humoral tendencies, we should be led to treat by constitutional as well as by local means, Professor Hebra would treat by local means alone, and the great success of his treatment leads us to inquire at what point between the two extremes the truth lies concealed. I believe that our lesson will be best learned by devoting more attention than heretofore to local treatment; and not less to constitutional treatment. The great excellence of the treatment of disease in England depends upon the proper appreciation of its almost universal constitutional origin. During his late stay in London, Professor Hebra honored me with his presence in my consulting-room on several occasions, and has left on my mind an ineffaceable impression of his rapid and sound diagnosis, and his extraordinary tact in the local management of cutaneous diseases. He is too sound a physician to reject constitutional means; but he declares that they are much less needful than is believed by us, and that a very considerable number of diseases are local in their nature, and may be perfectly cured by local remedies."

In the chapter on erythematous eruptions, we notice descriptions of two affections: Erythema intertrigo and Erythema chronicum, which, we think, should more properly have been placed under the head of eczema, the former being in most instances a true inflammation of the skin produced by the combined action of maceration and friction, and accompanied by itching and infiltration, while of the latter he himself says: "This form of erythema is very commonly met with as a sequel of chronic lichen and chronic eczema; a chronic lichen, in fact, wherein the papulæ have subsided, or a chronic eczema in which the ichorous secretion has ceased to be formed, the redness, the thickening of the skin, and more or less of exfoliation of the epidermis remaining; in a word, the pathological state of the skin to which the term *psoriasis* has been applied, and to which it should be strictly limited." In connection with erythema, we cannot avoid alluding to the mistake, which is often made, of applying this term to affections of the skin, which are marked by the most grave anatomical lesions and changes of structure, and by processes of ulceration and new-growth, merely from the fact that in the beginning the skin may have assumed for a time an erythematous appearance, which, as is well known, is often the first symptom of such fatal diseases as Pellagra and Elephantiasis.

We have, on another occasion, spoken of the mischievous custom of multiplying the varieties of any simple eruption according to the season of the year, its chance shape, or the part of the body upon which it appears, and we would again, in connection with the twelve distinct varieties of roseola laid down on page 145, refer to the effect which this unnecessary system of inventing names must have of rendering the study of cutaneous diseases complicated and difficult to the inexperienced student.

We next come to the lichenous or papulous eruption, in which we find included three affections, namely: Lichen, Strophulus and Prurigo. With the exception of Lichen exudativus ruber of Hebra, a very rare and fatal disease, it is doubtful if there is really any eruption of the skin which truly deserves this name, and which might not more appropriately be placed either under the head of Prurigo or Eczema. Of the six verieties mentioned, L. simplex and L. circumscriptus differ in no way, apparently, from Prurigo; L. annulatus is Herpes tonsurans; L. urticatus differs in no respect materially from Urticaria, and L. agrius is Eczema rubrum. Strophulus in all its varieties, as he admits, is merely the lichen of young children and infants, and should more properly be referred to eczema. Of his varieties of Prurigo, we should admit his mitis and formicans as mild and severe forms of that affection, but we can but think that the symptoms he describes as P. senilis and P. pudendalis are due simply to hyperæsthesia of the skin, and are not the anatomical lesion properly called prurigo. The local varieties, P. podicis and P. scroti, we think, too, are really eczema of those parts and not at all pruriginous in their nature.

Vesiculæ. Having already endeavored to demonstrate something of the true protean character of eczema, and pointed out many of its phases which have been regarded as distinct diseases, we have little more to add in relation to the author's views except with reference to the methods of treatment he employs against it. Regarding, as he does, eczema as a blood-disease, he considers the proper law of treatment to be, 1st, elimination; 2d, restoration of power; and 3d, alleviation of local distress. Accordingly we find him administering, even to infants, calomel in repeated doses, to prevent revulsion, he says, and to allay the mother's and nurse's alarm lest the disease should be *driven in*. Having attained this point of safety, which we had supposed existed only in the imagination of the female sex, he then considers the patient ready to receive his great specific, namely. arsenic, which "cures rapidly, perfectly and unfailingly." Now we maintain that in ninety-nine cases out of a hundred both the mercury and arsenic are entirely unnecessary, and therefore objectionable, and that every case will yield as rapidly to judicious *local* treatment alone. In Prof. Hebra's clinic in Vienna, where many hundreds of cases of eczema are treated every year, the treatment is wholly local, and certainly no one could be more successful than this eminent instructor in the management of this obstinate affection. But Mr. Wilson does not rely wholly upon his specific, for by his own account it seems he too uses local remedies, in the form of zinc ointment, to "soothe and heal the eruption, to subdue the pruritus and to arrest the morbid discharge," or, in other words, to cure the patient. If such, then, be the result of its employment, what remains for the arsenic to accomplish?

Under Pustulæ we find two affections described, Impetigo and Erythema, which, we are satisfied, if they have any real existence, are of very rare occurrence. We have seen that we may produce a pustular affection at will: and in the great majority of cases the term Impetigo is improperly applied to an advanced stage of eczema, and this may always be stated in regard to I. capitis, the crusts of which, stained yellow by the abnormal sebaceous secretion, are often considered to be wholly composed of purulent matter. In certain conditions of the economy, moreover, an exudative efflorescence runs through the various phases of its existence with great rapidity, and hence the eruption is said to be pustular from the first. We do not mean to deny the existence of an idiopathic pustular eruption, but maintain that it is rare, and that Impetigo and Ecthyma are names applied to appearances which are often the result or sequelæ of merely mechanical irritation of the skin, and are produced by, and consequently are a part of, other diseases.

Passing by his chapter on diseases arising from general causes, to several points connected with which we should like to allude, if our space allowed, we come to Scabies, in the description of which we think he has not kept sufficiently distinct the primary appearances produced by the sarcoptes upon the skin and the secondary eruption subsequently induced simply by the itching, which the presence of the animal provokes. We have never seen the scaliness which he describes as the first symptom of the affection, nor do we consider a vesicle as in any way necessarily an indication of the lurking place of the parasite. No reference is made either to the habits of the males and young of the animal, although they play quite as important a rôle in this disease as the female. When once impregnated, the latter begins to bore transversely downwards through the epidermis until the freshly formed and succulent cells are reached, after which the burrow is pushed horizontally at that depth, and generally in a straight line. Each day an egg is laid and left behind her in this vaulted canal, until at the end of two weeks the embryo contained within that first deposited emerges, and, leaving behind the ruptured shell, crawls out upon the surface to begin life by itself. Each day accordingly an addition is made to the young stock, which, as well as the adult males, do not dig any long burrows, but shallow pits only for nourishment, and ramble at large over the skin, carrying their depredations and the disease over all parts of the body, and causing nearly all the itching to which the subsequent eruption is due. The old female never leaves her hole, and sometimes forms a burrow several inches in length. This has the appearance, externally, of a slightly elevated white line, which may be rendered much more prominent by rubbing either with a strong alkali, which raises it still higher by the infiltration it produces within it, or by applying ink to the suspected part, which may be subsequently washed away, leaving the track of the animal of a dark color. We see, therefore, why it is that in some cases a person exposed to the disease may not exhibit any other symptom than a solitary unnoticed burrow for a fortnight, when the young begin to make their appearance upon the surface whereas in other cases the transference of the affection may be accomplished by several young or males, which begin their provoking rambles at once, and cause an immediate eruption. It is this circumstance, principally, which determines the so-called period of incubation, and not, as Mr. Wilson says, the particular temperament, climate, season, youth, confined air, &c.; nor can we understand why it is that he should make the extraordinary statement that "one of the most remarkable phenomena of scabies is the localization of the acarus *to the hands*, while the eruption excited by it may be spread more or less extensively over the entire body." This is quite as far from the truth as many of his statements in regard to *vegetable* parasitic affections. It is true that among the favorite lurking-places of the animals are the folds of the skin between the fingers, for there they find the conditions of warmth and moisture they prefer, but they also affect by choice as well the penis, folds of the axillæ and buttocks. Indeed, were we seeking for a specimen for the microscope, we should search any of the latter regions rather than the hands, where its movements are interfered with, and we have in our possession two long burrows filled with ova and fæcal matter, and containing the female which we saw Prof. Hebra snip with a pair of curved scissors from the tender skin of the penis and axilla. As to the treatment of scabies, we cannot certainly agree with our author that its cure may be effected in the shortest possible time by simple sulphur ointment; nor do we consider three weeks necessary to eradicate the disease, for, on the contrary, three days are generally time enough for the cure of the worst case. We do not mean to say that the excoriations, eczema and pustules produced by a long-continued scabies can be made to disappear in so short a time, but that the exciting cause may be put to rest, and subsequently the secondary eruptions will disappear without treatment, or under simple cold water.

In connection with the subject of ambustio, or burns, we find an account of Prof. Hebra's method of treatment by the perpetual warm bath, which prevents the formation of the cicatricial tissue which produces such frightful deformities. The same wonderful results may also be obtained by the repeated applications of nitrate of silver to the parts while healing, as we have had opportunity of witnessing in his wards.

In the same chapter with eczema we find a disease described under the name of Psoriasis, which is nothing but one of the most frequent chronic forms of the former affection. If, on the other hand, we look for the disease which commonly bears the name of psoriasis, we find it under the title of lepra or leprosy. It is unnecessary now to inquire into the cause of this improper application of terms, for Mr. W. has lately fallen under the powerful personal influence of one whose endeavor has always been to simplify both the classification and therapeutics of skin disease, and he has seen the error of his former opinion. In the preface, which has been before alluded to as having probably been written after the printing of the present edition, we find the following in relation to this subject, which is entirely at variance with the opinions expressed in the book itself, but which will prove a more important emendation to the next edition than any of the trifling new paragraphs in the present one. "Those who have honored me by perusing my writings and following my inquiries, may have noted the difficulty which I have experienced in dealing with the word 'psoriasis.' To clear away, therefore, the confusion occasioned by the misuse of this term, I recommended its abolition, or, at the least, its application solely to the chronic eczema above noted. But it may very properly be asked, Why call eczema by any other name than its own? I can only answer, that I have done so heretofore in deference to authority, and to a widely-spread custom. Perhaps the moment has come, and I hope it has, when a better, and possibly the proper use of the term, may be recognized.

"To return to Hebra. The term Lepra—*der Aussatz* in German—signifies *the* eruption, the great eruption. It is synonymous with Leprosy, *the* leprosy, the ancient leprosy, that which has since been called elephantiasis. Therefore, let us bestow the term lepra where it rightfully belongs, or reject it altogether. The trivial affection which we at present call lepra has no single point of comparison with leprosy. We cannot but admit the truth of this argument, and we cannot, also, but recognize in an instant the monstrous absurdity of calling a comparatively insignificant disease by so portentous a name.

"Now, Hebra cuts the Gordian knot. Eczema he calls eczema; lepra, lepra: and that very common affection which we at present term lepra, he calls psoriasis. The change is simple, the reasons for it important. We cannot do better than adopt it. Moreover, it suits the spirit of the British bull-dog to call things by their proper names, and we are too noble in our nature not to recognize and value the intellect of our foreign brethren. The great International Exhibition of 1862 will not have existed in vain, if it have accomplished no more than to enable us to give the proper name to a very common and troublesome disease."

As to the causes of this disease our author says that he has stated his belief that the leprous poison is in its essence and origin syphilitic, modified by transmission through several generations. For this belief he offers not the shadow of a proof, which might not as well be applied to every affection to which our flesh is heir. Its causes are, and probably will ever remain, unknown, but guessing is not a scientific way of investigating them. As to treatment he says:—"local treatment for the cure of lepra is useless, and not to be regarded as curative but simply palliative:" and in another place, "as a specific in lepra there is but one reliable remedy, and that remedy is arsenic." Further on he states that "arsenic will cure lepra with certainty; but neither arsenic nor any other known medicine will prevent it from returning again; sometimes, after a thorough dispersion by arsenic, the eruption never re-appears, but more frequently it recurs the following year, or after the lapse of several years."

We agree entirely with Mr. Wilson that no remedy will *cure* psoriasis, but we insist upon it that local treatment will drive it away far more rapidly than arsenic, and that the "cure" is as much a "certainty," for the disappearance is just as permanent in the one case as in the other, the advantage being in favor of the local method, inasmuch as it is far more speedy.

What has been said with regard to the origin of psoriasis will apply quite as well to the author's opinion in relation to the cause of Lupus, the powerful logic of whose deductions may be judged by the following extract:—"The commonly recognized source of lupus is scrofula;

and then we may ask, What is scrofula? Now, scrofula, if not in all cases, certainly in some, takes its origin in syphilis. Therefore, lupus, or scrofulous lupus, may be considered as an appendage of syphilis, more or less direct." We find three varieties in this volume, two of which, Lupus non exedens and L. exedens, are one and the same affection, whereas L. erythematosus is a purely local disease, and has nothing whatever in common with L. vulgaris except its seat and its misapplied name. Instead of being a frightful omen and "defying treatment," it yields at once to the application of concentrated Iodglycerin. In the treatment of true lupus the author says nothing of a remedy which has proved a specific in the hands of Prof. Hebra, namely, the solid nitrate of silver, for a description of the use of which, we would refer the reader to Vol. lxii. p. 457 of this Journal.

Leaving entirely unnoticed the chapter on syphilitic diseases of the skin and the eruptive fevers, we must pass to the consideration of some of the so-called affections of the special structure of the skin. Under the title Chloasma, Mr. Wilson has confounded two entirely distinct diseases, which have nothing in common but a faint resemblance in color, namely, true chloasma, which is an abnormal deposition of pigment in the rete mucosum, and pityriasis versicolor, an affection produced by the growth of a cryptogamous plant in the epidermis. But we have not the space at this time to notice the false views of our author in relation to the diseases of the skin and hair, produced by the presence of parasitic plants. The whole of that portion of his book which treats of Ringworm or Herpes tonsurans, of Sycosis, of Favus and of Porrigo decalvans, we have no hesitation in saying, is entirely unworthy of perusal. It is thoroughly unscientific, contains much which is false, and is throughout an absurd attempt to sustain himself by weak arguments against fact. The ablest dermatologists as well as distinguished botanists recognize the cryptogamic element of the diseases abovementioned, and their contagiousness is beyond question.

It may be thought that inasmuch as we have found so much to criticize in the present volume, we would take from it all merit whatever, but such is not the case. It is because the work is so generally regarded in this country as the highest authority upon skin diseases, that we have felt called upon to contrast so many of the author's peculiar opinions with the experience and observations of others who are not so well known to our readers. J. C. W.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JULY 30, 1863.

Medical Examination of Drafted Men.—We observe that some of the newspapers are disposed to speak sneeringly of the exemption by the medical examiners of large numbers of the men who have been drafted for military service. The same sort of remark is not uncommon in the community, and ironical expressions concerning the general ill health of the people where no evidence of it had before appeared, are heard quite frequently. Some regard this state of things as evidence of pusillanimity on the part of the drafted, and this is specially dwelt upon by the enemies of the government, when the exempted man happens to be one whose sympathies are wholly enlisted in the cause of the country. Now this feeling and these expressions are all wrong. It is too much to expect from a certain class in this community, happily a very small one, anything like magnanimity or justice in their language when they speak of the war in which we are engaged. Judging them by their words, nothing would please them more than to have every one of the supporters of the government throw himself in the way of the armed host of the rebellion, no matter how helpless or unfit for resistance, to be trampled under foot, as punishment for his opinions and sympathies. In their view, no man has a right to utter a word for the cause of the North who is not able on the spot to take up arms and join the forces of its defenders. To such we do not speak, for it is a mere waste of breath. But to those who honestly suppose that exemption is too readily granted for the most trifling causes, we would say that they are greatly mistaken. Taking for granted the honesty of the examiners, we regard this free exemption as evidence that the examination is more rigid than it has heretofore been in the case of recruits, and therefore promises much better for the public service. The army has been encumbered from the first with enlisted men who have been a mere dead weight and clog upon its movements, solely for the reason that they were physically unfit and should never have been there. A willing spirit may make a weak man strong for a short effort or sudden emergency, but will not sustain him through the tremendous exactions of an arduous campaign in the field. The evidence of the Surgeon-General, in his admirable work on *Military Hygiene*, is very strong on this point. He says, it "becomes a matter of primary importance to require the most rigid supervision of those who present themselves for enlistment, *or who may be drafted*, into the army," &c., and he then proceeds to point out in detail the disqualifications which should lead to the rejection of the recruit, setting up a much more exacting standard than that which has been given to the examining board for their guidance.

It should be remembered that many bodily infirmities of a highly disqualifying character are such as from the very nature of the case cannot be known to the world at large. Severe hæmorrhoids, varicocele, hernia, varicose veins, prolapsus ani, and many others, are generally known only to the individual himself or the immediate circle of his friends. Many men of quiet and sedentary occupations have chosen them for the very reason that they are afflicted with some bodily infirmity, and it is a cruel injustice to such to charge them with a disposition to magnify a complaint which does not interfere with their usual avocations, because it does entirely disqualify them for the violent efforts and great fatigues of a soldier's life.

Neither is it proper to infer, from the large number of exemptions thus far on account of physical disability, that the same ratio will continue among the drafted men. It is natural that those having, as they suppose, a valid claim for exemption on this account, should present themselves early before the examiners, in order to have the business settled at once, or in case they pass the examination that they may have time to procure a substitute, should they wish to do so, or to raise the sum required in commutation. The number thus far rejected for bodily infirmity should not be taken as a fair index of the general physical condition of the male population.

PLEURO-PNEUMONIA IN CATTLE, AND SWILL MILK.—Our readers will remember the great outcry several years since in that usually quiet and amiable commercial metropolis of ours, New York, on the subject of "swill milk." It was the absorbing topic of the day. An illustrated paper was full of the most startling representations of the wretched creatures from which the lacteal supply of a large part of the population was drawn, and unmeasured was the public indignation at their owners, who fed them, as was alleged, on the offal of the distilleries. City ordinances of the most stringent character were passed, prohibiting the use of such food; and quite recently we saw in one of the daily newspapers an account of the prosecution of three offenders, who were only released from the penalties of the law on the plea of ignorance. It now appears that the cows supposed to be sickened by their diet were really suffering from pleuro-pneumonia. In the report of the Cattle Commissioners of this State, contained in the Tenth Annual Report of the Secretary of the Board of Agriculture, we find the following passage:—

"From Philadelphia the commissioners proceeded to Brooklyn, New York, to visit the herds said to be infected with a milk-disease similar in its character to the pleuro-pneumonia of Massachusetts. They went directly to Skillman Street, to the place described by Frank Leslie in his illustrated paper. Near the cattle-sheds were several cows apparently dying from disease, whose symptoms did not differ from those of cattle infected with pleuro-pneumonia. Leslie's description had impressed us with the idea that the cows in these places had been fed with offal collected from the city, and that in consequence, and by reason of bad ventilation, the disease had been there generated This opinion seems to have been endorsed by the surgeons who had visited those places. They had entirely misrepresented the state of the case. By the kindness and favor of Messrs. Wilson and Fletcher, distillers, we were permitted to examine the cattle of various milk dairies. Mr. Fletcher, who, by the way, is a Massachusetts man and every inch a gentleman, conducted us through the cattle-sheds and explained to us the mode of feeding. The 'swill,' about which so much is said, proves to be nothing more or less than the distillery grains, so highly prized in this region for feeding cattle. In addition to these, more hay of the very best quality is fed out than is generally fed by the farmers of Massachusetts.

"It was evident to us that no disease was there generated. Mr. Fletcher kindly procured for us a sick cow, which was killed and examined, and proved to be affected with the genuine, infectious pleuro-pneumonia. One man had lost his whole herd of forty by the disease. Whence did it come? The information was voluntarily proffered. It was brought over by a cow in a ship from England about the year 1850. This cow was taken on board to supply milk, and after the arrival of the ship, was sold to a dairyman near the South Ferry, in Brooklyn. This cow had the veritable pleuro-pneumonia, which she disseminated, and which previously had never been known there. The disease spread with great rapidity, annually taking off more than fifteen per cent. of the cattle. The practice of inoculation was resorted to, but without beneficial results. The value of the milk business in that section is nearly destroyed. The cattle that do not die are fattened and killed for beef, which confines the disease, happily, to that region."

We will add that we are informed, on reliable authority, that the largest part of the milk consumed in the city of London is drawn from cows kept within the city limits and fed on distillers' grains, and that the milk is remarkable for its excellence.

SUPERIOR HEIGHT OF AMERICAN SOLDIERS.—The great height of American soldiers is shown by the following table, in which the results are given for eighteen hundred men (one hundred from each State), taken in the order in which they were entered in the Adjutant General's office. The table is quoted from the *Medical Statistics of the United States Army from* 1839 *to* 1856.

State.	Mean Height. *Feet.*	Six Feet and over.	Greatest Height. *Feet.*	*Inches.*
Indiana	5.7604	18	6	4¼
Kentucky	5.7729	18	6	3¾
Ohio	5.7537	15	6	3½
Tennessee	5.7779	18	6	3
Maine	5.7314	11	6	2
Vermont and New Hampshire .	5.6951	6	6	1
Massachusetts and Connecticut .	5.6821	5	6	3
North Carolina	5.7814	24	6	3¾
Georgia	5.8272	30	6	6½
South Carolina	5.7729	15	6	4½
Alabama	5.7647	17	6	4
Virginia	5.7488	15	6	2
New York	5.6 05	4	6	1½
Pennsylvania	5.6756	5	6	1
New Jersey and Delaware . .	5.6509	6	6	1
Maryland	5.7130	9	6	2
Illinois	5.7696	17	6	3
Missouri	5.7162	8	6	1½

The great stature of the American, when compared with that of the English and French Soldiers, is made sufficiently apparent from the foregoing table. Of one thousand men in the British army there were but sixty-five of six feet and over, and in the French Army but four, while of eighteen hundred recruits for the United States Army, two hundred and forty-one were six feet and over in height, or somewhat more than one hundred and thirty-three per one thousand. At the time the materials for this table were collected, no recruit under five feet five inches was accepted.—*Hammond's Military Hygiene.*

THE HYPOPHOSPHITES IN PHTHISIS.—Dr. Frederic D. Lente, Surgeon to the West Point (N. Y.) Foundry, publishes in the *American Medical Times* the result of some experiments made by himself with the hypophosphites in the treatment of phthisis. The hypophosphite of lime was manufactured expressly for him by E. N. Kent and Mr. Chilton of New York, and tried on a variety of cases in different stages of the disease, being given in five-grain doses three times a day. The effect was negative. The common solution of the hypophosphites, sold over the country, was afterwards tried, with the same result. To test the matter more thoroughly, Dr. Edward R. Squibb was requested to manufacture a pure article of the hypophosphite of potassa, for further experiments. This was done, Dr. S. taking special pains in preparing and putting it up. This was used at first, three grains in milk, three times a day, at meals, and afterwards increased to five grains. The result is thus stated by Dr. L. :—"In a great majority of the cases no effect was produced by the remedy ; in some a moderate improvement seemed to follow its use ; but in most of the cases other remedies had produced better effects, or did produce better after being substituted for this. In a very few cases it seemed really to be efficacious where other remedies had failed. But in no instance did I observe those marked, prompt and positive effects ascribed to it by its inventor, Dr. Churchill."

Remarkable Arrest of Cancerous Disease by Operation.—At a late meeting of the New York Pathological Society, Dr. Conant referred to a remarkable instance of arrest of cancerous disease by operation which had occurred twenty years ago in the practice of Dr. Mussey. The disease first made its appearance in the thumb, and that member was amputated ; recurring in the stump, the hand was amputated ; and continuing to return, the fore-arm, arm and shoulder were successively removed ; and last of all it was found necessary by Dr. Crosby, who then had charge of the case, to remove the scapula and clavicle. The disease never returned after this last operation, and the subject of this series of operations is now perfectly well.

Vineyards in California.—We learn from the report of a committee appointed by the Assembly of California on the petition of the winegrowers of that State, that the number of grape-vines set in vineyards in that State, according to the reports of the County Assessors, as compiled in the Surveyor-General's report for 1862, is 10,592,688. The following principal wine counties have the number of vines set down against them respectively :—

Los Angeles . . .	2,570,000	Amador	311,000
Sonoma	1,701,561	Calaveras	300,000
El Dorado	772,547	San Joaquin	300,000
Yuba	650,450	Yolo	234,430
Santa Clara	600,000	Tulare	225,000
Napa	540,000	Tuolumne	197,300
San Bernardino . .	500,000	Contra Costa . . .	184,200
Sacramento	412,000	Placer	135,532
Solano	400,000	Santa Barbara . . .	115,000

The rate of increase in the number and size of vineyards is large. All the vines of the State did not number 1,000,000 seven years ago. Los Angeles, which has three times as many vines surviving from the time of the Mexican domain as all the other counties together, had 592,000 bearing vines, and 134,000 young vines in 1856, according to the County Assessor's report for that year. The annual increase in the State has been about 1,500,000 since then ; and though less hereafter, it will still be large.

The amount of wine made in 1861 is reported, very incorrectly, by the County Assessors as amounting to 343,000 gallons. The amount made in 1862 was about 700,000 gallons. The amount made in all the other States of the Union in 1859, according to the United States census, was 1,350,000 gallons.—*Hunt's Merchants' Magazine.*

THE ORDEAL BEAN OF CALABAR.—The following notice by Mr. W. B. Tegetmeier appears in the *Intellectual Observer* of the present month :—

"At the conversazione held at University College on the 10th of June, Professor Harley exhibited specimens of the bean employed by the King of Calabar as a poisonous ordeal to determine the guilt or innocence of accused persons.

"The plant yielding this bean is kept secret from the natives generally, and the seeds are consequently to be obtained only with great difficulty. The name that has been given to the plant is *Physostigma venenosum*, or Calabar ordeal bean. It belongs to the Leguminous tribe, having distinct papilionaceous flowers, succeeded by pods about six inches in length, each containing about four or five seeds, having white cotyledons, resembling in taste the seeds of the common haricot, *Phaseolus vulgaris*. The leaves are ternate.

"Taken internally, the beans, unless rejected by vomiting, produce fatal paralysis. In some experiments made in this country, it has been found that twelve grains have produced partial paralysis, threatening to be serious in its results. In the course of investigation into its properties, it has been ascertained that the extract of the bean possesses a most extraordinary power over the iris, a few minims of its solution dropped into the eye causing contraction of the pupil to such an extent that the aperture becomes entirely obliterated, and the eye possesses the appearance of having an imperforate iris. In order to demonstrate this action more fully, and to contrast it with the opposite effect of a solution of belladonna, a cat was exhibited, to one eye of which belladonna had been applied several days previously, causing dilatation of the pupil to such an extent that the iris was scarcely visible; to the other eye a solution of the ordeal bean had been applied, which caused obliteration of the pupil. The contrast between the two eyes of the animal was of the most marked character, and imparted a strange weird expression to the face. In the course of the evening the pupil dilated somewhat—the effect of the Physostigma passing away gradually in the course of about twenty-four hours, whereas that of the belladonna persists for many days. Specimens of the plant have been raised in this country from the imported seeds."—*London Chemist and Druggist.*

PROFESSORIAL CHANGES IN BERKSHIRE AND BOWDOIN.—Prof. P. C. Chadbourne, of Williams College, has accepted an appointment to the Chair of Chemistry and Natural History in Berkshire Medical College. He holds a similar position in Bowdoin College, Me.—Dr. C. L. Ford, Prof. of Anatomy in the Berkshire School, and of Anatomy and Physiology in the University of Michigan, has accepted an appointment to the Chair of Anatomy and Physiology in the Medical Department of Bowdoin Medical School, rendered vacant by the resignation of Prof. Conant. Both of these gentlemen carry to their new fields of labor the well-earned reputation of ripe scholars, thorough, brilliant teachers, and Christian gentlemen.

Our readers will be pleased to see in this week's Journal a letter on European Ophthalmic Institutions, from Dr. Henry W. Williams, of this city. The familiarity of Dr. Williams with diseases of the eye, and his distinguished skill in treating them, cannot fail to make his letters interesting and profitable.

Appointments, &c.—Dr. C. Everett Dow, late of Princeton, Me., has received an appointment as Post Surgeon at Philadelphia. Dr. D. has gained an honored reputation in the medical profession, and is well worthy of the position which he now holds.

The Commissioner of Pensions has appointed Dr. Samuel P. Danforth, of Royalton, Vt., to make examinations of invalid pensioners, and of applicants for such pensions.

Surgeon James Holland, 1st Mass. Cavalry, has been honorably discharged from the service on account of physical disability.

A new Association has been recently formed in Philadelphia, with the title of the Odontographic Society of Pennsylvania.

The first Semi-annual Meeting of the Dental Society of Western New York was held in Rochester on Tuesday, May 5th, 1863.

The first regular meeting of the Central New York Dental Association was held in Auburn, May 12th, 1863.

The Fifteenth Annual Session of the Medical Society of the State of Pennsylvania was lately held in the Lecture Room of the University of Pennsylvania. Dr. Wilson Jewell was chosen President for the ensuing year.

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, July 25th, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - - -	50	37	87
Ave. mortality of corresponding weeks for ten years, 1853—1863,	43.9	37.7	81.6
Average corrected to increased population - - - - -	00	00	89.91
Death of persons above 90 - - - - - - - -	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Chol.Infan.
13	4	1	1	0	4	2	17

Died,—At Waitsfield, Vt., June 29th, of diphtheria, Emery G. Judkins, M.D., aged 33 years.—In New York, Dr. John Watson, aged 56—well known as a successful practitioner, a popular lecturer and voluminous writer.—In Montreal, Dr. Wolfred Nelson—long known in Canada as a thoroughly educated and distinguished physician. Dr. N. was among the exiles to Bermuda, between twenty and thirty years ago, on account of participating in the rebellion of that period, but has since enjoyed all his former popularity—having been repeatedly re-elected to Parliament, and twice chosen Mayor of the city.

Deaths in Boston for the week ending Saturday noon, July 25th, 87. Males, 50—Females, 37.—Abscess, 1—accident, 3—disease of the brain, 3—bronchitis, 1—cancer, 1—cholera infantum, 17—cholera morbus, 1—consumption, 13—convulsions, 2—croup, 4—diarrhœa, 3—diphtheria, 2—dropsy, 1—dropsy of the brain, 3—dysentery, 4—scarlet fever, 1—ship fever, 1—typhoid fever, 2—gastritis, 1—homicide, 1—insanity, 1—intemperance, 2—jaundice, 1—disease of the liver, 1—inflammation of the lungs, 1—marasmus, 3—old age, 2—puerperal disease, 2—scrofula, 2—shot (in the riot), 1—sore throat, 1—disease of the spine, 1—wounded in battle, 1—unknown, 3.

Under 5 years of age, 40—between 5 and 20 years, 10—between 20 and 40 years, 19—between 40 and 60 years, 12—above 60 years, 6. Born in the United States, 58—Ireland, 22—other places, 7.

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GERSTS

The New England journal of medicine